

**IDENTIFICATION OF THE VALUE OF WEAPONRY WITH THE
RAJPUT RULERS :**
A CASE STUDY OF BATTLE OF KHANWA AND BATTLE OF HALDIGHATI
THESIS
SUBMITTED IN FULFILMENT OF THE REQUIREMENT FOR THE
AWARD OF THE DEGREE OF
DOCTOR OF PHILOSOPHY

IN

HISTORY

By

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DECLARATION

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CERTIFICATE

Certified that the thesis entitled, **IDENTIFICATION OF THE VALUE OF WEAPONRY WITH THE RAJPUT RULERS [CASE STUDY OF BATTLE OF KHANWA AND BATTLE OF HALDIGHATI]**, submitted at Amity University, Haryana, Gurugram, for the award of degree of Doctor of Philosophy in history, is the original research work of Ms **Sangeeta Tomar, Enrollment No: A51884216001 (GGN/2016/NS/1001)**, a bonafide PHD Research Scholar, at the Amity school of Liberal arts, Amity University Haryana, Gurugram, carried out under my Guidance and supervision.

It is further certified that the thesis is submitted for the first time and the candidate has fulfilled all the statutory requirements for the completion of the doctoral programme.

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Acknowledgement

I would like to express my special Thanks of gratitude to my supervisor **Dr. Kiran Devendra**, who gave me the golden opportunity to do this wonderful research of history on **“Identification of the value of Weaponry with The Rajput Rulers” (Case Study: Battle of Khanwa and Battle of Haldighati)** without her guidance and constant encouragement I could not possibly accomplish this work. Her moral support and masterly guidance were a constant inspiration for me throughout my research work. Her guidance will help me throughout my life. She introduced me to a new field of research the weaponry history of Rajputs, which has benefitted me in so many ways. It is due to her efforts that I came to know about so many new things. I am really Thankful to her.

I am also indebted to Dr. H.K. Jha Sir for always being cooperative and helpful.

I have no words to thanks my parents who always wished for me a better life. They are the main source of my happiness and progress. It is impossible for me to Thank them for their each and every effort which made my life worthwhile. I would also like to acknowledge my best friend, my well-wisher Mr. Niranjana Singh Tomar for his moral support.

Sangeeta Tomar

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Abstract

The history of India is full of warfare. In order to study the history of India we have to analyse all the battles and also take into consideration the weapons employed in them. A lot of information related to the Rajputs have been studied by scholars, historians and writers. Researchers felt importance of Rajputs in history so they have put their views in front of us. The angle of writing and documenting has links to non-public decisions, experiences and also the sources chosen to includes in writing of the author or conservator. The ancient people used to keep their reminiscences and culture in their own specific ways. Some of them did it in writing and some used to handle this by transit it to generations through bards, poems, songs, living rituals, traditions. Documenting the history of individuals, from their own voice and their own words and exhibiting their own experiences, leverages the actual community and society as a full to be a witness of the complete history writing and documentation.

This study would explore new study on wars and weapons, based on a synthetic use of different classes of sources, contemporary or semi-historical works, in different Indian languages including Puranas, technical works an archery, sword and animals, accounts of foreign travellers and observers, art and archaeology, coins and inscriptions. This study of weapons and warfare is neither a full-fledged military history of the period nor an encyclopaedia of medieval Indian warfare. Weapons are a test of courage as well as demonstration of strength, manhood, pride, virtue, victory, justice and freedom. Arms have had an impact on our society since ancient times. Weapons changed from time to time according to the need of the soldiers. Initially, weapons were used for hunting, but as the greed to expand their kingdom, the weapons and soldiers became necessary in any political unit. For Rajputs, war was a way of life and therefore weapons were important. Weapons also

signify the risking of one's life for the protection of one's country, ideals, culture and honour. Thus, it is an identification of the value of those weapons which were used by Rajputs in medieval times.

This study seeks to review the system or systems of warfare of Rajputs. In view of the works already undertaken, the present study aims to investigate the value of weapons, battle strategy and tactics in war, role of weapons in battle etc. This is bridging the gap between past and present of the viewers and community.

The present study relates to study on development of weapons and war systems. The study is based on Primary and secondary data. An empirical research methodology with descriptive survey method is applied to attain this objective. An exploratory research design is followed while covering all three methods, viz., the survey of literature concerned, the experience survey and the analysis of insight stimulating examples. The study is carried out using both quantitative and qualitative data analysis methods.

A detailed Study on two battles; The Battle of Khanwa and the Battle of Haldighati are taken here as Case Studies.

Keywords-

Strategies, Weapons, Armours, Warfare, Organization, Society, culture, Community, Observers, Viewers, Strength, Strategy, Tactics

Chapter - 1

Introduction: Weapons and Warfare

Background of the study and Conceptual Framework

The History of India is ancient and immense so it was divided into segments. The primary five centuries, from eighth to twelfth, represent an amount of transition from the traditional to the medieval amount; consequent five centuries from thirteenth to eighteenth represent the medieval period. Medieval period witnessed a vital technological modification, - the disappearance of the war chariots and use of artillery began in India. Even when such a huge modification, it had been a matter of pride for Indian warriors. They were able to use their weapons against the invaders who had ammunition and had modern weapons.

This study provides research material on war and weapons, included an artificial use of various categories of sources, modern or semi-historical works, in several Indian languages in the form of Puranas, technical works, weapons and animals, accounts of foreign travellers and observers, art and anthropology, coins and inscriptions. This study of weapons and warfare is neither a full-fledged military history of the amount nor a reference book of medieval Indian warfare. It's a study to explore the worth of these weapons that were used by Rajputs in medieval India. It seeks to review the system or systems of warfare of Rajputs.

Special guidelines are given in Indian text for warriors. The Bhagavad Gita says that *“Violence is typically necessary, if it flows from immortal Lord Krishna. [For a mortal, nothing is quite a war against evil. The mortal confronted with such a war got to be happy, Arjuna, for it comes as Associate in Nursing open gate to heaven. However, if you're doing not participate throughout this battle against evil, you'll incur sin, violating your immortal and your honour” ... Bhagavad Gita a pair of .31-33]*

Manusmiriti has been asked for mortal that-

“To fight to death for these great passions (defence of family’s honour and country’s warfare) to feel that it is honour to die for them and dishonour to retreat from them to give up everything material for them, to war for them to the last man, is just, true and righteous war and there is not a thought or a passion connected with it which does not exalt and ennoble, not only the persons and the nation which wage it but the whole body also by humanity to whom the great tradition of this defence is handed down and whom the memory of it inspires, teaches and ennoble”.

In brief, we can say that the war which is fought to protect people and country of taking into consideration religion is right. The Rajput have always followed these rules, they took up weapons only for the protection of their people and their country. Rajputs never attacked innocent people, they fought many wars to protect their country from external invasions, out of these, they won some wars and some lost but they never turned back from their religion and their ethics.

The history of Republic of India is jam-packed with such examples, if we wish to look at the Indian history, we find that man had deep and special relationship along with his weapons. He continually unbroken them to demonstrate his power and continually maintain them. He treasures and preserves them, it’s his attachment. The concept of war is inherent in man. He has been fighting for ever since his protection. In Vedic text, *war is delineated as a method of development*. In Atharveda, soldiers were said to be inspired by the crusade that –

Soldiers! Get up and get ready with your flag because your enemies are like a deadly snakes, conquer them, rid your enemies and kill their commander with the help of your army.

Giving inspiration to Arjuna in the Mahabharata, Shri Krishna says that no duty more than crusade is important for the Kshatriya. In both epics Ramayana and Mahabharata, the war has been considered as a religious ritual in which anyone can attain salvation by sacrificing life.

In mediaeval time, Rajputs shored courage to defend the country; they bring out their weapons on the day of Dussehra to place them ahead of their God to offer them and their weapons the ability to fight the enemies. This ritual means that Rajputs gave their weapons a lot of importance and they also prayed to their lord to make them and their weapons capable for protecting the people and their country.

In Bhagvata Gita, lord Krishna defined the meaning of kshatriya –

शौर्य तेजो धृतिर्दाक्ष्य युद्धे चाप्य पलायनम्।
दानमीश्वरभावश्च क्षात्रं कर्म स्वभावजम्॥

Courage, energy, patience, unavoids wars, donation and self-respect all signs of kshatriya.

Kalidas writes in ‘Raghuvansha’ –

क्षत्रतकिल त्रायत इत्युदग्र क्षत्रश्च शब्दो भुवनेशुरुढः।
राजमेन किं कद्वीपरित वृत्ते प्राणैरूप कोशमलीन सर्वा॥

That means, the world is protected only by Kshatriya against internal and external atrocities, such as exploitation, hunger, ignorance, immorality, incest and loss of public money caused by the enemy on the contrary neither the kshatriyas nor the one who has the right to govern. A Rajput warrior used to keep engaged him in his daily routine of prayers and worship in the usual way even the battle used to be very close to him. He donned his turban, with a determination to fight the foe with all his might and unflinching loyalty of the God, his country and master. With such a noble character the Rajput soldier always welcomed the call for fight.

Habib writes that the Rajputs were in person terribly brave and nice swordsmen who regarded every battle as a tournament to show their skills, bravery and chivalry. Babur noted in his diary in 1526 AD that Rajputs lacked the capability of taking advantage of the enemy’s

weakness and creating feints and manoeuvres on the field of battle. Instead of playing tactics, Rajput always fight face to face, struttingly and do not prefer retreating assault.

From the beginning of the war till its end, Rajputs never left their principles. In the field of war, they continuously followed their principles. They didn't even think about any fraud or cheating. Maybe for this reason they lost several battles, however seeing their defeat ahead, never shored their back. Rajputs wouldn't stab a mortal on the rear and claim straightforward finish. The belief was that solely cowards would do such lowly job. To the Rajput, killing a person from his back was an opprobrious act. Likewise, to them, words or promises were important and ought to be kept at any cost. No way the Rajput warriors would compromise on their character and valour under any circumstances.

The value and importance of the army were realized very early in the history of India. Hence, the need for a permanent army was soon realized. At the same time, they also started to feel that their weapons were also necessary for the army, so the weapons had a special importance in our history since ancient time. With reference to literary sources, the earliest details of the sword is in the hymns of the *Rigveda* (1500 B.C.) which is the oldest religious text in the world and one of the earliest written documents. The hymns of *Rigveda*, dedicated to Aryan Gods, refer to the *Asi* denoting not only the sacrificial sword but also the weapon of war. The *asidhara*. Of denoting the scabbard, is also mentioned. The *asi* is identified as the chief weapon of the infantry, though the sword together with the spear is also mentioned as the main weapon of the cavalry. There is also a passage in the *Mahabharata* which states that when a warrior's bow and arrows failed of; when his chariot and charioteer were destroyed; his sword and shield came to the rescue.

Kautilya or Chanakya, author of the *Arthashastra* (320 B.C.), a treatise on government and economics, mentions three type of swords. *Nistrimsa* is described as a sword measuring 30

angulas or finger widths. It has a crooked hilt. *Mangalagra* literally means a sword with a round tip instead of a pointed one. The third type of sword mentioned is the *Asiyashti* which is described as very sharp and long. Kautilya goes on to feature that handles of weapons were made up of the animal's horns, elephant's tusks and wood. The swords that were described by Kautilya find expression in the famous sculptures at Amravati in Andhra and at various other sites. From the earliest written word about weapons, we move on to sculpture for more evidences of their development. One of the earliest representations of the sword in sculpture is from the second century B.C., this is a buddhist fragment from Bharhut in central India. Another piece is at the great stupa at Sanchi near Bhopal and related to the first century A.D. The next stage in the development of the sword brings us to the sculptures of the first and fourth centuries A.D., executed during the time of Kushana empire.

In ninth and tenth centuries, the Rajputs came in front of us. Of the various clans of Rajputs, thirty-six in all, the Chauhan established themselves in eastern Rajasthan and the Tomars in the Haryana region. The city of dhillika (Delhi) was founded by them about 800 A.D. The Parmar clan ruled Malwa and the Chandellas ruled area around Khajuraho. During 11th and 12th centuries, the Rajput clans fought each other increasingly. Therefore, the war became a part of the general chivalric code.

Prithviraj Raso, A Poem, described arms and armour of medieval India. These weapons have been named by M. L. Nigam. These names are sanskritized and recommend their autochthonal origins. *Prithviraj Raso*, therefore, describes the traditional weapons in India before the advent of Central Asian or Persian weapons.

The Nilakanteshwar Temple of Rajasthan and the Temple of Khajuraho, built in the 11th and 12th centuries, give major evidence about sword. Their sculpture shows that blades were narrow mid-point, at the waist and were spoon shaped with rounded tips. There are so many

types of swords appear in Khajuraho temples: double-edged straight swords, thrust swords, cut swords, curved swords. Interestingly, women are shown wielding swords or carrying swords, daggers and bows. In the medieval period in western India, the Rajput khanda and the standard hilt were developed. The sword with the forward angled blade is also encountered.

Numerable similar evidences of the sword were found in south India also. C. Sivaramamurthy, in the *Bulletin of the Madras Museum*, lists the various types of swords as the lotus petal shapes sword, bamboo leaf shaped sword, *Mangalagra* type sword which is found in the raised hand of the soldier, *asiyasti* which is a very long sharp sword mentioned by Kautilya. Small daggers are also represented in the sculptures and these are called *churrikas*.

Other evidence of the sword is from the rock cut temples of Ellora in Maharashtra and the Mahabalipuram. Two chief Indian blades are seen from there- the leaf shaped and the straight parallel-edged type. There are many other places of south India from where many evidences of sword are found. In the medieval age of south Indian sword took on an extravagance form which sorely impeded its proper use. There was a great variety of blade shapes: straight, undulating, hooked, bellied, curved and elbowed, most of which seem to be the products of individual invention, and their forms are regarded as the products of fantasy rather than practical use.

Finally, it can be said that arms have had an impact on our society since ancient time. Weapons changed from time to time according to the need of the soldiers. Initially, weapons were used for hunting, but as the greed to expand their kingdom increased, as such weapons and soldiers became necessary. Changes were made in these weapons from time to time, resultantly weapons became deadlier.

With the passage of time, weapons became additionally refined. By medieval time, the Rajputs developed the Khanda. This wasn't solely elegant however showed extremely developed attainment. It's for the rationale that the khanda has survived into modern time. During this period, aesthetic considerations also started playing a part in sword design and the embellishment of the weapons became important. The development of a superior sword during the medieval period also suggests that the art of swordsmanship had become highly skilled by them. Arms may signify and supreme sacrifice in addition because of the involvement of life and death. This twin involvement of arms with life and death is symbolized by kings of past going into battle in splendid array, clad in beautiful armour and marked by royal umbrella, knowing that their aglitter apparel might even as simply be reworked into a shroud. However, this array, this exuberance was a necessary part not solely within the celebration of life however conjointly in men's defiance of death. Weapons have perpetually intrigued humans, as a result of humans has perpetually been intrigued by war. The aesthetic appreciation of a superior weapon is greatly amplified by holding it and once doable, by exploitation it. The sword firmly held in the hand becomes an extension of the arms. It becomes one with body. We can feel its strength and authority for the sword has the power of life and death.

Abdul Aziz in his "Arms and jewellery of the Indian Mughals" mentions that the standard Rajpoot Khanda remained a very important weapon throughout Mughal times. It had modified over the years. The blade was usually ninety centimetres long. It's single-edged from the highest and double edged towards the point.

In any war, only weapons protect the warrior's life. Similarly, Rajputs were also able to protect themselves and their people by their own weapons. This was the reason that Rajput warriors developed an emotional relationship with their arms. Rajputs maintained their weapons like their arms, they always kept their weapon with them because these weapons

used to protect their lives in wars. This is the reason why even Rajput society weapons are still worshipped. The worship of weapons was an important part of the tradition of Rajputs which is celebrated every year. This festival is celebrated on the occasion of Dussehra. On this day, Rajputs worshipped their arms and vow that they will always protect their people and country.

Jaiwant Paul said in his book “Interestingly and at the same time surprisingly, swords and daggers from India present a diversity and a range probably unparalleled anywhere in the world. India is a heterogenous country and these variations in the shape, form and style of the Indian sword evolved over centuries and are the outcome of the martial, cultural and historical traditions of the regions to which they belong”. He further explained (2005) in his book “Arms and Armour” gives the information about weapons of Rajputs and Mughals, decoration of weapons, shapes and forms of weapons, style of warfare and some example of their war strategies. The most commonly found weapon in India is the main sword of Rajputs called *Khanda*. The details of its shape and parts will be written further in this chapter.

WAR GALORE

India encompasses a wonderful past and an upscale history. The primary issue that strikes the minds of individuals is that how India has developed the standing of greatness. General tendency to answer the current question in our mind and answer is that the India is a nice country due to its culture, its values and its civilization.

The history of India is filled with wars. These wars also played as retraining factors of india’s culture as well as civilization. Within the medieval time once the Rajputs emerged, foreign invasions have started, in such some way the Rajputs has come back with the responsibility to preserve India’s culture and so, Rajputs Fought several wars from foreign invaders.

War, as the word suggests, is armed conflict. It's fought against external forces or between two opponents. War may be a violent, cruel and associate wrong acts nevertheless it remains an unbreakable companion of human culture. War is not only a medium to maintain a country's security, consolidation of peace but it also expands the geographical limits to execute policies and to obtain various interests to use it in order to enhance political power, pride and prestige. In other words, the history of warfare is closely linked not only with political history but also with cultural and socio-economic history.

During the eighth to tenth centuries that witnessed the rise and fall of the Pratiharas in northern India, due to the emergence of the Muslims/Arabs as dual role of invaders and rulers, it raised a new socio-political system in India, The Rajput, as defender of the previous order. The well unionized ancient four-limbed (Chaturanga) ground forces consisting of foot, Cavalry, Chariots and Elephant (besides admiralty and transport) came to get replaced by the clannish organisation of the Rajput, consisting of tiny semi-feudal armies of imposing chiefs, that became the order of the day. Not only army, Rajput also kept various types of weapons with them, who protect them in war.

According to David Baker- *"The Rajput showed an amazing talent for designing fearsome and deadly weapons and those that we used and tested are some of the best in the arsenal. The Katar and scissor katar are punch daggers on steroids. The Khanda sword has a straight, double-edged blade and is one of the most powerful swords we have ever tested. The Chakram is a simple steel circle with a sharp edge- one thrown; all your opponent can do is try their best to get out of the way"*.

Rajput originated from Rajasthan which suggests "Land of Kings". Their effective combat techniques and weapons were adopted by several communities. Rajput warriors were trained from birth to become a warrior, each one being trained in martial arts and a master with each of his weapons. When it comes down to it, it was the Rajput superior training and skills in

single combat that won the match. At the time of Prithviraj Chauhan, many changes were made in weapons. He supplemental a back spine on the blade to feature additional strength. He additionally created the blade wider and praise, creating it a formidable cutting weapon. Rajpoot warriors in battle wielded the Khanda (sword) with each hand and swung it over their head once enclosed by the enemies. At the time of Maharana Pratap, weapons started being prepared by a loyal Nomad Tribe of Gadi Lohar.

For Rajput, war was a way of life and therefore weapons were important. Weapons also signify to endanger the one's life to save another life, country, ideals, culture and houner. Weapons were also a test of courage and a demonstration of strength, manfood, pride, virtue, victory, justice and freedom.

Mr. Stanley Lenpul had said that the Rajput's sense of valour and dignity encouraged them so much for courage and sacrifice that it was difficult to get the attention of Babar's soldiers.

CONDUCT OF WAR

The history of Bharat is basically a history of our culture and progress. The value and importance of the army and their weapons were realized very early in the history of India and this led in course of time to maintenance of a permanent militia to put down dissension. War or no war, the army was to be maintained, to meet ant unexpected contingency. This gave rise to the Kshatriya or warrior caste, and the kshatram Dharma came to mean the primary duty of war. To serve the country by participating in war became the savadharma or this warrior community. The necessary education, drill and discipline to cultivate militarism were confined to the members of one communities and kept the whole social structure unaffected by actual wars.

As it mentioned, the importance of army was realized very early in the history of India. Therefore, it was necessary that the army should be maintained properly, it should be given effective and deadly weapons and should be taught to use weapons. Moreover, the numerical strength and proper stability of the army depend on four essentials:

- Exclusive and whole-hearted attention of the ruler,
- Bold expenditure of enormous treasures,
- Good leadership, implying 'affectionate and kind' officers,
- Distinguished character of the central minister of war. He should look after 'the general and detailed affairs' of the army. He must be unsurpassed in certain qualities including 'correctness of faith'. He should be trustworthy, efficient, honest, affectionate, truthful, of noble birth, dignified and true of his promises.

The strength of the army is to be increased by good payments, that of arms and weapons by penances and regular exercise and that of intelligence by the companionship of people learned in Shashtras. The character and organization of armies have changed in history. The role of armies came to be revised as a result of social and political aspect of nations. New weapons determined the nature of warfare and organization of armies. Armies have been built around infantry soldiers, or mounted warriors or men in machines- made up professionals or amateurs or mercenaries or of patriots.

According to Clausewitz – The art of war or conduct of war relates to the formation or conduct of the fighting. These include strategy, tactics and logistics. These may be described as partners in war which must work in union but strategy dominates as it covers planning of war and is the art of carrying out wars. It deals with strategies used to deceive the enemy, plans for a campaign and all broad aspects of waging war. It pre-empt almost the whole field

of generalship, short of the battlefield itself. Tactics is the art of executing plan of fighting and making army dispositions. Logistics is the practical art of moving armies and includes ways and means to work out the plans of both. In brief, strategy is the art of conduct of war: it decides where to act, and directs armies to the decisive points of the operational zone, logistics brings the troops to the points, and tactics is the art of fighting and handling troops in battles when assisted by courage, genius and fortune, gains victories.

Babur said in his ‘Tujuk-e-babri’-

‘Before coming to india, Rana Sanga’s power had increased so much that none of the Sultans of Delhi, Gujarat and Malwa could help afford to compete without the help of Hindu Kings. In the battle with me, so many great kings came to fight under the leadership of Rana Sanga. Rana’s flag was flown in 200 cities, even under subordinate countries of Muslims. Under this, there is a state of income of 10,000000 rupees, in which one lakh riders can live according to the laws of India.

In order to increase the morale of his army and for protection, To fill the spirit of faith in his army, Babur dug trenches in the war zone, so that the enemy army could not directly attack his army. Apart from this, Babur got many bullock carts in the battle zone and got them firmly tied with chains so that his army could hide behind them and defend themselves at the time of attack.

In order to win any war, it is inevitable to use the entire army along with weapons. Hence Rajputs divided their army into four main parts: Infantry, Cavalry, Camel Corps, Elephant Corps. Apart from this, the operation of soldiers in war is conducted on the basis of a strategy. Proper strategy is an important step to bring the war in the favour.

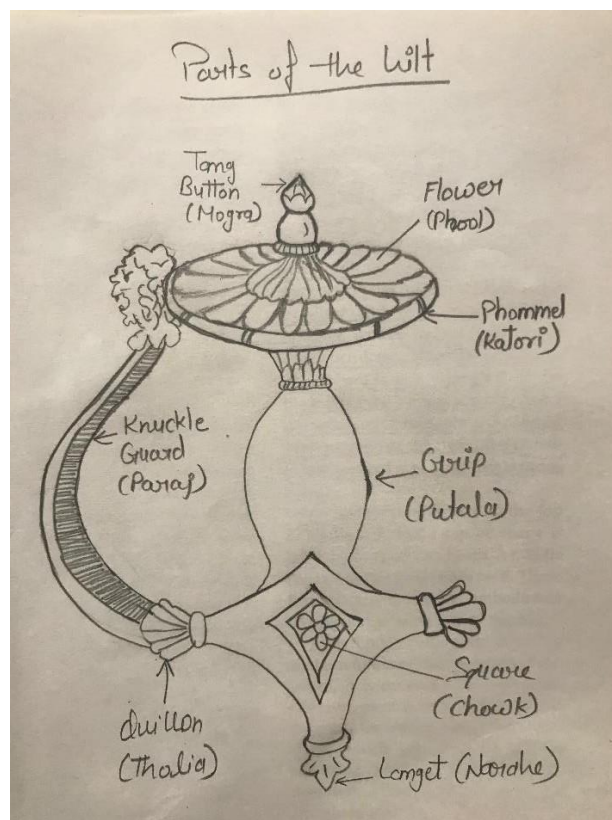
GENERAL REMARK ON THE SHAPES AND STYLE OF WEAPONS

Our knowledge of weapons and the armour is vague and uncertain. So, before proceeding it's necessary to get the basic knowledge about the shape and style of weapons. The arm was diversely named in our records. Prithviraj Raso, named the weapons as *Khadga*, *Tegha*, *Lohatti*, *Uaddhali* (*double-edged sword*), *Niraasi* (*sword with watered blade*), *Patta*, *Talwar*, *Dhup*, *Katta* and *Gupti* (*sword stick*). These names were sanskritized. There are no standard names for describing the different parts of the sword.

The two main components of the arm and dagger are the handle and Blade. There are not any customary terms or names for describing the various components of the handle or the blade. The handle is termed mootha in Hindi and quabzah in Urdu. Within the tang button in the handle, a hole is usually created to withstand a security loop of animal skin or silk. This sword knot is wrapped round the wrist so that the sword cannot slip out, even if one loses grip.

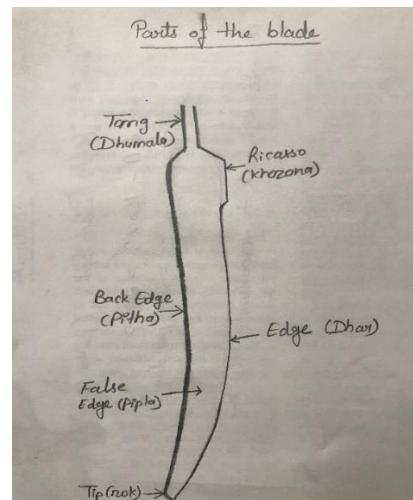
The blade has two main parts: The Tang, which matches into the handle and also the Blade. The Tang is fastened to the handle with a heated paste of animal product or red dye from the peepal Tree, that then sets and holds the tang firmly within the handle. Sheaths of arm and daggers were sometimes made from wood lined with velvet, silk or animal skin. Metal sheaths were additionally in use and varied from brass to silver and gold.

Hilt and its Parts



Metal sheaths, however, tended to blunt the arm edge once drawn. Normally, the sheath or scabbard is wide enough to fit the blade but if the blade is sharply curved it is necessary to have a slit in the sheath to accommodate the curve, and the slit is then covered with a flap that buttons down.

Blade and its Parts



An upper fitting is fastened to the highest of the sheath and a cap or chape is fastened to the tip of the sheath. A middle fitting was additionally sometime used. These fittings are usually embellished lavishly within the same way as hilt. Even though thrusting is both fundamental attributes of the sword, it is necessary to distinguish between sword which are meant primarily for cutting and slashing and those which are used chiefly as thrusting and stabbing weapons. Swords meant solely for thrusting have straight blades, with the length of the blade, its stiffness or rigidity, and the point or *nok* all assuming greater significance. However, straight swords can even be designed for cutting. The *Khanda* and the *Dhup* have straight blades, but these are intended for both thrusting and cutting; those with points more suitable for thrusting and those without points for cutting.

On the other hand, swords intended for cutting or slashing have curved blades instead, and this is the main distinction between the two types of swords. Cutting swords are usually single-edged but may have a false edge. The *Talwar*, which is an Indian sword, and the *shamsheer*, which had its origins in Persia, both have curved blades and are splendid cutting weapons.

Swords with less curvature within the blade represent a compromise, or the third possibility, and might be used for each cutting and jabbing, however don't seem to be as economical as those created for one purpose. The arm with the backward curve and single edge was an Indo-Persian development. The curved blade achieved a very definite objective-gaining most cutting power, typically at the expense of different qualities. However, it had been ideal for its purpose and will not be improved upon. At constant time, it should be appreciated that with the curved blade the point becomes useless and also the defensive capabilities of the sword are significantly reduced. Indian sword plays favoured cutting and slashing at the opponent, combining it with agility and acrobatics to avoid the enemy's strokes, with the shield always playing an essential part in defence. Some type of Daggers, especially the *Katar*, are equipped with sword breaking bars descending from the hilt and this indicates that the dagger could also be used for defensive action along with the sword, but this must have been rare.

The shape and size of the sword was also influenced by whether it was used by the infantry or the cavalry. The curved sword was ideal for the sweeping cut delivered from the shoulder by the horseman. It was a natural weapon for the purpose. In later centuries, armour developed and the body was better protected, it became difficult for the sword to cut through with slashes and there was emphasis again on the point of the body were not adequately protected by armour, such as the armpits or the groin, and it was easier to inflict a wound by thrusting and stabbing rather than by a slashing cut.

With the passage of time, weapons became more sophisticated. By medieval times, the Rajputs had developed the Khanda. This was not only elegant but showed highly developed craftsmanship. It is for the reason that the Khanda has survived into modern time. During this period, aesthetic consideration also started playing a part in sword design and the embellishment of the weapons became important. The development of a superior sword during the medieval period also suggests that the art of swordsmanship had become highly skilled by then. It is interesting to note that the technical improvements in weapons made during medieval times added not only to the functional properties but also enhanced the aesthetic qualities. For example, in the Khanda, the addition of the strong ribs along with the back edge were trellised designs that they added interest and beauty to the weapons. It is clear that medieval swordsmiths were not just skilled craftsmen but also artists in their own field.

Chapter-2

Review of Literature

There are many historians who extended their views related to the origin of the Rajputs, but there are very few who wrote about their weapons. And the historians who wrote about the arms of Rajputs, they emphasized on a specific subject, as someone took note of the decoration of Rajputs arms, while others compared them to the weapons of the Mughals. But no historian has written that the weapons used by Rajputs were very fatal, they were the weapons to destroy many enemies at one go.

Apart from this what has been written about Rajputs and their weapons so far, this subject needs to be explored further. We can best trace the history of weapons from the specimens. But from early history, few weapons are available. We have, therefore, to look into on literary and artistic sources for evidence. Painting, sculpture, ancient treaties and occasionally numismatic should be explored for supporting evidence, or to fill in our knowledge about periods where no other evidence is available.

With the passage of time, weapons became more sophisticated. Into medieval time, the Rajputs had developed the Khanda, these developments showed highly developed craftsmanship. It is for the reason that the khanda has survived into modern times. During this period, aesthetic considerations also started playing a role in sword designing and the embellishment of the weapons that became important. The development of the superior sword during the medieval period also suggests that the outstanding art of swordsmanship had become highly skilled by them.

As I said before, in any war, only weapons protect the warrior's life. Similarly, Rajputs were also able to protect themselves and their people by their own weapons. This was the reason

that Rajput warriors developed an emotional relationship with their arms. Rajputs maintained their weapons like their arms, they always kept their weapon with them because these protected their lives in war. This is the reason Rajputs still worshipped their weapons. The worship of weapons was an important part of the tradition of Rajputs which is celebrated every year.

The first reference to an Army occurs in the *Atharva Veda*. The *Taittiriya Samhita* mentions a Senani (Commander of the Army). This must have been responsible for the organisation of the newly created organisation because it was the major responsibility of the “Rajan” to personally lead the army in the battle.

Manusmriti’s messages for a warrior is “To fight to death for these great passions (protection of family’s honour and country’s welfare) and feel that it is honour to die for them and dishonour to retreat from them, to give up everything material for them, to fight for them to the last man, is just true and righteous war and that there is not a thought or a passion connected with it which does not exalt and ennoble, not only the persons and the nation which wage it but the whole body also by humanity to whom the great tradition of this defence is handed down and whom the memory of it inspires, teaches and ennobles”.

Jaiwant Paul said in his book “Interestingly and at the same time surprisingly, sword and daggers from India present a diversity and a range probably unparalleled anywhere in the world. India is a heterogeneous country and these variations in the shape, form and style of the Indian sword have evolved over centuries and are the outcome of the martial, cultural and historical traditions of the regions to which they belong”. He (2005) in his book “Arms and Armour” gives the information about weapons of Rajputs and Mughals, decoration of weapons, shapes and forms of weapons, style of warfare and some examples of Rajput war strategy.

Col. James Tod (1829), described about the “Karga-Sapna” or worship of the sword. In his word “The greatest oath of the Rajput was against the throne, is by this arm, ya silah ka aan, (by this weapon) as, they would take up arms in their hands to protect the people. Tod has spent many years with the people of Rajasthan, in his personal experience, he writes about the character of Rajputs –

“No other race can be compared with the Rajputs. These Rajputs have spent centuries of many lives in gruesome misfortunes and atrocities, but there has not been any difference in their independence and self-esteem so far. Rajputs lost everything but did not let their self-esteem go away. They are very dear to their respect. Rajputs have amazing power to experience humiliation. As far as respect is concerned, a Rajput still maintains a battle of war is small tolls of his life and ready to take and give life. This is a Rajput character, who has been walking with him from time immemorial. How many castes have disappeared in the world and many do not know how many castes were new? The terrible changes of nature and character are found in this world. But no change in Rajput’s life till now has not come in front of the eyes.

Babur said in his “Tuzuk-e-Babri” – “before coming to India, Rana Sanga’s power had increased so much that none of the sultans of Delhi, Gujrat and Malwa could afford to complete without the help of Hindu kings. In the battle with me, so many great kings came to fight under the leadership of Rana Sanga. Rana’s flag was flown in 200 cities, even under subordinate of muslims. Under this, there is a state of income 10,000000 rupees, in which one lakh riders can live according to the laws of India. He has also written in his daily routine that his army was so scared by Rana and to increase the morale of his army, he gave trenches in front of his army in the battlefield and on the other side of the trench, rows of carts were made and bind them with chains so that the front army could not attack suddenly”.

Egerton quotes a graphic account, written about 1800 AD, of the character of the Sikhs as infantry as compared with the other fighting races of India; “The Rajputs will fight as Prithvi Raee and Janghiz Khan waged war. They will ride on horses in tumultuous array and they will wield a sword and spear with individual dexterity; but neither of these cavaliers will design to stand in regular ranks and learn as the Sikhs have learnt, to handle the musquet of the infantry soldier, although the Mohometan has always been a brave and skilful server of heavy cannon”.

In “Oriental Armour”, H. R. Robinson observes (2013) “From the first centuries AD. We have remarkable sculptures of Gandhara in north west India, where strong Hellenistic or Roman feelings dominated the arts. When represented in their sculptures, warriors wear turbans on their heads, long sleeved tunics and full trousers tucked into ankle boots, such as the ancient Scythians, Persians and Parthians are always represented as wearing. Over the tunic they wear close fitting cuirasses or armour comprising breast and back plates, carved with a trellis pattern which at first glance looks like imbricated scale armour. But as true scale armour is also carved on the shoulder and breast of cuirasses, it obviously represents some other form of defence – Perhaps quilting”. H. R. Robinson also describes about Rajput’s armour “The thick coat is made of quilted fabric and velvet. It is long and full and reaches up to the knees but it is split up to the waist. It has detachable scalloped flaps over the shoulders and upper arms. The surface is decorated with nails, or rather rivets, in a scale or diamond patterns, with repeated floral or herringbone design at the borders. In some cases, a layer of thin leather was laid beneath the velvet to give a firmer seating to the nails, which were simply bent over at the back. In the centre of the breast and the back are fastened large circular and curved metal plates to protect the chest and the back. In addition to these chest and back plates are smaller horizontal plates above them and one at each side to give more cover. To the centre of the skirt section, in front of the thighs, are fastened curved plates with

pointed top ends and squared bases. The large shoulders flaps, which are separate, are attached by loops and buttons and each flap has a central plate following the outline of the Fabric.

Sir J. N. Sarkar (1960), in his book “Military History of India” describes the use of elephants in warfare. In the ancient and middle ages, elephants were used to form columns (Vyuh in Sanskrit) of troops, serving as pillars at regular intervals, between which the infantry and cavalry were drawn up. In the battle against Alexander on the river Jhelum, the elephants of Porus when seen from a distance presented the appearance of towers, and the infantry resembled a great wall”.

Dr. Surinder Singh Kohli had said in his article about Maharana Pratap that Maharana Pratap was the unique Rajput, succeeded to the Gaddi of Mewar in 1572. He was a true Kshatriya, like his predecessor Bappa Rawal. He could not tolerate the humiliation of Chittor and began a life long struggle for the vindication of honour of his house.

Mr. Stanley poole writes about Rajputs that the prestige and knighthood of Rajputs used to excite them for courage and sacrifice and that was also difficult for Babur to get into the meditation of decent soldiers.

Literature review and references in the area of research is a continuous process and more information, facts and references would further be explored in research papers in future.

Chapter-3

Research Methodology

Research Methods

This section will summarise the methodology intended to be used in the research. The research in the similar areas has been taken into consideration while deciding the methods to be used. The prime aim of the research is to identify the value of weapons with the Rajput Rulers.

The participants in the research are the museum curators, Bards, historians, students, museum visitors and few representatives of Rajput community. The research is conducted through the Descriptive Research. A Qualitative and Exploratory research is further conducted under the same. Self-designed questionnaires, personal interviews and telephonic interviews (Both Structured and Unstructured with open ended questions) are used as the tools for research. The data collected from different sources are analysed and interpreted through qualitative research. The data is selected and categorized according to the requirement of the study. The research has respected the privacy of the participants and prior permission has been granted before publishing it further.

Research Objectives

Broadly, this research aims to evaluate the value of Rajputs' Weapons. This research evaluates new discussions about Rajputs and their culture, isolate and identify the War strategies and preparation of wars, document a certain study about different kinds of

weapons, explore the Army Organisation system, study the military art which includes defensive and offensive arms, their use and methods.

Research Questions

There are various research questions which needed attention through this research:

How Rajputs used to prepare weapons and how they applied them?

What type of martial art was used by Rajputs?

After mastering the art of war, why did Rajputs lose the victory?

What were their strategies?

What kind of weapons they had?

What were the essential things to win the war on which the Rajputs did not pay attention?

Research Gap

This paper intends to bridge the gap between the history we have been learning through the text books and history we have created. An attempt has been made to understand the role of weapons in past. A considerable research has been done on weapons but not much has been written about them.

Significance of the Study

The Purpose of this study about Rajputs and their weapons means that any fact that have not been revealed so far can be brought to the fore. Whatever the facts have been revealed by

historians so far, it is very difficult to estimate that the reason for the defeat of Rajputs would be their weapons only. If we believe that Rajput had lost due to his weapons then some facts recorded in history proved this fact completely wrong. In the battle, when Maharana Pratap was confronted with Bahlol Khan, a warrior of Akbar, Maharana Pratap had cut Bahlol Khan along with his horse in two pieces from one go of his sword. This is an example which proves that Rajputs' weapons were not weak in any sense. It is also recorded in our history that the Rajputs are credited with giving a new look of sword.

At the time of Maharana Pratap, the armourers of the Rajputs, the Gadi Lohars, are today a wandering tribe of nomads. Their home was originally Chittor, where being experts at getting the right combination of heat, metal and forging, to making weapons. But this community left Chittor swearing never to come back. They have wandered for 400 years in their decorated black bullock carts, earning their living making agricultural implements and tools instead of swords and spears. This is another example of the fact that Rajputs gave special attention in making their weapons.

This is one of the topics of study that requires further research, there are many questions whose answers can come out by a new research. It may be that the facts on which it was said that Rajputs lost in war, that fact was influenced by some kind of political influence or some kind of truth has not been come to the fore. This study will endeavor to bring out all the facts that are still hidden or the facts which cannot be understood.

Chapter-4

Weapons, Armours and Strategic Concept

I have mentioned earlier; our knowledge of weapons and the armour of early history is tantalizing vague and uncertain. Weapons have played a decisive role in the race for survival. Man created and improvised weapons for hunting, for self-defence and for offense. Each type of weapons requires knowledge and mastery of its specific technique. The history of weapons therefore, is also the history of the techniques of warfare. Prehistoric man produced and used hand-axes, choppers and arrowheads made of stone. By the 3rd millennium B.C., people of the Indus Valley culture were producing copper or bronze swords and daggers besides stone and flint tools. The discovery of iron around 1200 B.C., proved a great impetus to the development of weapons. It observed for ourselves the multiplicity of Indian weapons held in the hands of Gods and Goddesses in sculpture and in paintings and obtain further detail from literature. Eighteen martial arts have acquired fundamental knowledge in the Vedas. All kinds of modern weapons were present in the ancient Vedic Period, it is mentioned in the Vedas. The technology of that era was different from present, but the firepower of weapons was as much as the present weapons.

CLASSIFICATION OF WEAPONS

According to the Vedas, there were two types of weapons: Shashtra and Ashtra.

Shashtra: - These are called Shashtra because of their hand movement. There were two types of Shashtra; Yantra Shashtra and Hasta Shashtra. In that period, it's also mentions about the protecting various body parts during war. For example, skin and armour for the body, shirastran for head and kanthtran for neck etc. Shakti, Tomar, Pash, Baan, Sayak, Shan, Teer,

Parigh, Bhinidpal, Narach etc. used to be under Yantra Shahstra. Rishti, Gada, Chakra, Vajra, Trishool, Asi, Khanjar, Khadak, Chandrahaas, Farsa, Mushal, Parshu, Kunta, Shanku, Vashi, Talwar, Barcha, Barchi, Kulahadi, Chaku etc. used to be under Hasta Shashtra.

Ashtra: - Ashtra is that which was operated by a Mantra or any instrument. The weapons thrown by the mantra and the Yantra were very terrible, there was a panic about them. Like presently the weapon cannon thrown from the machine.

It is necessary to include all these things in this study because there are many weapons which were also discussed in the Vedas and which have been used till medieval and beyond. Numerous classifications of weapons based on their characteristics, their mode of operation and functions have come down to us from ancient and modern writers. Kautilya divided them with regard to their form and characteristics such as those with edges like plough-shape or razors, bow & arrows, swords, stones, armour.

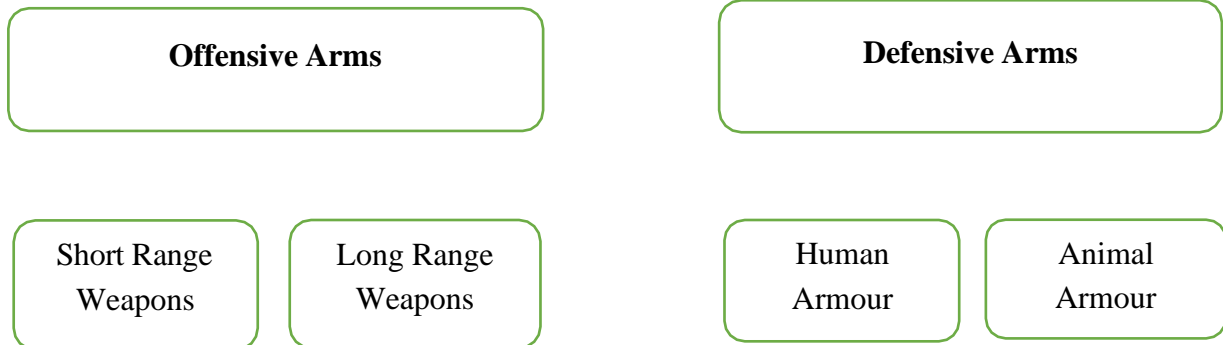
The Agnipurana divides weapons on how to operate them-

- a) *Yantra-Mukta- thrown by Machine*
- b) *Pani-Mukta- thrown by hand*
- c) *Muktasandharita- those thrown and drawn back*
- d) *Amukta- which are not thrown*
- e) *Bahuayudha- Natural weapons*

The *Dhanurveda* mentions four classes of weapons like Agnipurana. *Bhoja* refers two classes, Deceitful (Mayikam) and Non-deceitful (Nirmayam). The Niti Prakashika classified four types of weapon, consisting the four feet of Dhanurveda.

These classification does not helpful for the modern generation but we should keep in mind that no new inventions were made; bows and arrows, swords, spears, maces, battle-axes etc., continued as in the past. Today, weapons may be divided into two categories.

1. Offensive Arms
2. Defensive Arms



Offensive Weapons

Offensive weapons are used to attack enemies. There are two types of offensive arms.

1. Short Range Weapons
2. Long Range Weapons

As this study includes details about the weapons of the Rajputs, therefore, I will explain here about all the short range and long-range weapons of the Rajput.

FUNCTION AND DEVELOPMENTS OF WEAPONS

Short-Range Weapons

These weapons were used for nearby opponents. These may be sub-divided according to their functions as follows:

- a) Weapons for slashing
- b) Weapons for smashing

- c) Weapons for thrust

Weapons for Slashing

Sword- Sword is an important part of our history. The use of sword began at time when it became mandatory to keep an army for war. Initially, the sword was in the form of a rod in which the blade and the hilt were made of the single cast. But later different types of weapons were manufactured. With the passage of time, weapons became more sophisticated. By medieval times, the Rajput had developed the Khanda. And because of these changes, the Khanda has survived into modern times. During Rajput period, aesthetic considerations also started playing a part in sword designing and the embellishment of the weapons became important. The development of a superior sword during the medieval swordsmanship had become highly skilled by them. The straight swords, shaped like a staff. The typical sword, the asi yasti (handle of wood) of kautilya, is comparable to the Patta of the marathas, and modern kirich. To this class perhaps belonged the khanda (straight or broad sword), the dhup (or dhoup) with straight broad blade, used by the deccanis. The famous Khanda of Rajah Man Singh is in the Jaipur City Palace Museum.

What are the characteristics of a good sword?

The *Yukti Kalpatary* describes a good sword as ‘one long, light-weighted, sharp, tough and flexible’, whereas a bad sword is small, heavy and flexible. if defining a best sword, we can say that it should be 50 inches long, the middling 40 inches and the worst 36 inches.

Barani says that a good sword can also cut an elephant’s trunk and it never breaks or spoils.

Indian weapons were both highly renowned and coveted in west Asia and was frequently mentioned in early Arabic Literature. Specimens of swords are described in contemporary chronicles and literature, engraved on coins, painted in sculptures, coins or miniatures of different schools - Rajputs, Mughals, deccan, Pahari and company, in different arms collections and museums.



Khanda (National Museum, Delhi)

The sword was variously named in our records. Prithviraj Raso, an epic poem gives knowledge about of weapons and armours. There are many types of swords mentioned in the Prithviraj Raso. Their names are depicted as such *Khadga*, *Tegha*, *Lohatti*, *Uaddhali*, *Patta*, *Talwar*, *Dhup*, *Katta* etc. Prehistoric weapons were made of stone and those were used for hunting. That time bone weapons were also used but only stone weapons have survived. Those weapons have been found in several parts of the country with rich hauls from Gujrat, Rajasthan, Central India and Madras. When the Aryans arrived in India around 1500 B.C., they adopted a style and form which was quite different. This is probably because the Aryans

brought a different type of sword with them. The sword described by Kautilya find expression in the famous sculptures at Amravati in Andhra and at various other sites. One of the earliest representations of the sword in sculpture is from the second century B.C. This is a Buddhist fragment from Bharhut in central India. The Khanda was developed by the Rajputs. The Rajput showed an extraordinary ability for plotting horrifying and mortal weapons. Khanda is one of the most powerful swords of Rajput.



Sword of Maharana Pratap

Maharana Pratap is the famous warrior of Rajputs. His Infantry also carried sword. Maharana Pratap's weapons were prepared by a nomadic community of blacksmiths which moves from one place to another on bullock carts. This community called Gadi Lohar and they were adept in their work. These weapons prepared by Gadi lohar were very deadly and evidence of this recorded in history. In the battle of Diwer, Maharana Pratap cut Bahlol khan into two pieces with his horse and Amar Singh crossed the spear from the Mughal commander's chest, proof that these weapons were very deadly.



Rajput most well-liked foot fighting with a Khanda and short spear as the main offensive arm. The possibility of holding the handle of khanda not terribly tight and let the weapon circle within the hand, the handle of the makes it potential to use different principles. These principles are usually merely derived among the instance of weapon handling techniques with the cross hold of the handle, that vary and choice unit extraordinary. The Rajpoot put together thought-about that a personal, who might learn to handle a weapon system alongside his right and left hands equally well, had additional benefits in an exceedingly fight. The ability of handling two swords at a time wasn't simply a theoretical or exceptionally approach. The ways in which to use the short-blade weapons embrace freelance offensive techniques similarly as secondary defensive or parrying for the used. Maharana Pratap was adept at wielding weapons. His defiance of the mighty Mughal empire, nearly alone and unaided by the opposite Rajput states, represent a wonderful adventure story of Rajput gallantry and also the spirit of cooperation for cherished principles. Rana Pratap's methods of fitful warfare was later employed by leader Ambar, the Deccani general and by Shivaji Maharaj.

Abdul Aziz in his *Arms and Jewellery of Indian Mughal* mentions that the traditional Rajpoot khanda remained a vital weapon throughout times. It was modified over the years and presently had a broad straight blade. The blade is generally ninety centimetres long. It's single-edged from the best and ambiguous towards the aim.

Most Khandas of the seventeen and eighteen centuries, found mainly in museums, have blades bolstered with slim fretted strips of steel running down the length of thereverse edge and several inches down the edge from the root, enabling the blade to be light and elastic while the reinforcement gave it strength and stiffness. The previous Indian handle was improved by Hindu Hilt, which was soft to cut the shock of blows. The hilt could be derived from equally hilted European swords, from the top of the pommel protruded a spike which not only acted as a guard for the arm but could also be gripped by left hand while making a

two-handed stroke. This increased the impact of the blow and in many respects the khanda was the most effective, versatile long bladed ever developed. The khanda was cutting and slashing weapon.

Another sword which deserves mention is the *sirohi* or *serye*. The name springs from erstwhile princely state in Rajasthan. Egerton says that the favourite swords found throughout Rajputana at the sirohi, a rather sinusoidal sword, blade formed like capital of Syria.

A sword popular among the Rajput was one with a hilt big enough to be used with both hands. These hilts, essentially, were long and had short quillons. The blades of those weapons were terribly broad, significant and single-edged. They were wielded additionally like battle axes and would deliver a shattering blow.

As I mentioned earlier, the armourers of the Rajputs, the Gadi Lohars are today a wandering tribe of nomads. Their home was originally chittor, where being experts at getting the right combination of heat, metal and forging, they made great and sharp Arms and armours for their masters. They have wandered for 400 years in their decorated black bullock carts, earning their living by making agricultural implements and tools instead of swords and spears. In the 1950s, prime minister Nehru personally led them back to a free chittor however their peregrine habits established for hundreds of years, Gadi Lohars wander still.

Empires were created by the swords – the most dominant weapon of war, next only to the bow. Since it is always held in the hand so classified as an “Amukta” (non-liberated weapon) in the Dhanurveda, the ancient treatise on the science of warfare.

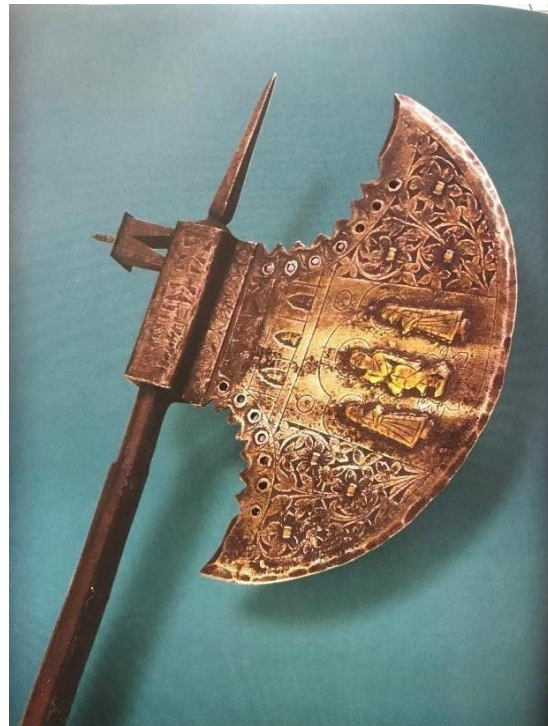
Swords are typified by the size and shape of their blades, each requiring a different mode of wielding. Essentially a cutting weapon with a sharp point, it was used in the stabbing method of fighting.

Before long swords, there was the dagger. While the earliest daggers are of the Indus valley period about 2500 B.C., the first appearance of a single-cast sword with antennae hilt is around 1000 B.C. By and large, the hilt and the blade were fashioned separately. Several different forms of the hilt gradually evolved.

Table-1 Types of Blades

| Curved Blades | Straight Blades | Assorted Blades |
|---------------|-----------------|---------------------|
| Talwar | Khanda | Dhar |
| Shamshir | Firangi | Kora |
| Zafar | Pattisa | Nagau |
| Takiya | Pata | Zulfikar |
| Aradam | Dhup | Gupti |
| Yataghan | | Dao |
| Kilij | | Shamshir-I-Zulfikar |

Battle Axe: - Battle Axe is also an ancient weapon. Kautilya, in his description of the king's armoury, enlists a few battle axes. The *Parasu* is described as a semi-circular scimitar, the *Pattasa* is shaped like a trident and the other mentioned are the *kuthara* and the *kuddela*. Battle axes are portrayed in the sculptures of Barhut, Sanchi and Udaigiri. Battle axes also appear in the painting at Ajanta and are listed in the Ain-i-akbari.



Battle axes don't appear to possess been very fashionable as weapons of war. They were in different sizes, from light weapons usable with one hand, to heavy poll axes requiring both arms. According to G. N. Pant, the *Tabar* consisted of a triangular blade with one broad innovative. The shaft of the battle axe generally measured ninety to hundred and twenty centimetre and the head of the axe five to six inches, measured vertically. The shaft was beautifully decorated with gold and silver work.

Weapons for Smashing

Maces: - The mace was basically a weapon to be used against armour, that purpose it's praiseworthy designed. The spiked mace was notably effective against the helmet. Many maces have been described in *Ain-i-akbari* (late sixteen century A.D.). The Gurz had a globular head and many other needle-like spikes were connected to be. The handle was manufactured from steel and was ninety to hundred and twenty cm in length. Some Gurz

were fitted with hilts. The head of the shashpur mace had six big ribs or flanges arranged around a central block. The mace head is then surmounted by one strong spike. As the name indicates, the pyazi mace head was heavy and shaped like an onion. The surface of the head had uneven projection.



Haldighati Museum

Apart from their use in war, maces additionally had a formalism role as a logo of workplace or command and were carried by mace servant or Chobdars. Such maces were manufactured from valuable metals and extravagantly ornate. But even otherwise, the handles of most maces were usually enriched with damascening, inlay and other forms of ornamentation.

Weapons of Thrust

Dagger: - The Dagger, with its short blade has continually been a gesture or stabbing weapon, in contrast to the long-bladed arm, that may well be designed, not solely as a gesture

weapon however additionally as a cutting and dynamical weapon. The dagger has usually been Associate in auxiliary weapon for troopers and was used in shut combat.

Among Indian hand-arms, the dagger was used when the target was close as in hand-in-hand fighting. Dagger with a thickened point or heavy 'Perce-maille' tip served best for thrusting. In India, daggers were used as early as the Indus Valley period about 2500-1750 B.C. These short and heavy weapons had straight blades with a medial rib, and a tang for fitting into the handle.

Rajputs generally carried a dagger tucked in their waistbands. Rajput princesses too invariably carried a "Kard"(Dagger) for self-protection. Besides their use in warfare, daggers with decorative hilts made popular gifts- to be used for hunting and in games.

There is an enormous kind of daggers in India, some designed as combat weapons, different as things of private adornment, and however others that are merchandise of pure fantasy. The most fascinating and effective Indian Dagger is JAMDHAR, found solely in Asian country. It's an edge that consists of two parallel arms extending backwards from the blade. These square measures connected by two or additional cross items that from the grip and square measure set close to the centre of the arms. The blade, continuously ambiguous, is triangular in form and frequently thickens at the purpose. the whole length is mostly from one to 3 feet, 1/2 that is that the blade.

The usual dagger, once command naturally within the hand, is at a right angle to the arm and also the force of the forearm drives it home. However, the katar or Jamdhar is command by the cross grip and also the blade is in line with the forearm instead of perpendicular thereto, in order that once it's thrust forward sort of a straight punch, it's not solely the forearm behind it however additionally the load of the body, that makes it a redoubtable weapon. Thrust during this manner the blade, that usually features a thickened purpose, will even split chain mail. the aim of thickening the purpose is to pierce and break the mail rings.

Katar blades square measure straight as a rule, however often one will come upon one with arcuate blades. The decoration of the Katar may be terribly creative. There's a fine looking Katar from Jaipur within the Wallace assortment in London, dated to the first nineteenth century.

The Katar is of Rajpoot origin but its use was broad. Rajpoot and Mughal small-scale painting of the period bear evidence to this fact. The Tanjore Armory once had a superb collection of Katars, but since its dismantling in the late nineteenth century these have been dispersed over several museums. Jambias were originally of Arabic origin however are fashionable all-over west Asia and Asian nation. Their characteristic feature could also be associate curving blade, generally ambiguous and typically ribbed. Hilts unit of measurement their best identifiable choices, ranging from fan shaped pommels to the smaller, topped Indo-Persian vogue.

Somewhat kind of like the Jambias area unit the Khanjars, that have an arcuate blade. Khanjars most likely originated in Turkey, they became very widespread in Asian nation, wherever they're apt to be a lot of intricately embellished than the other sort of dagger. The hilts square measure manufactured from ivory, jade, crystal, calcedony and square measure oft set with precious stones. The sheaths also are adorned to match the hilts. In the Wallace collection is an exquisite Khanjar from Delhi from the early nineteenth century. It has a pistol-shaped grip. The blade is thirty centimetres long, of flattened diamond section.

The kard is essentially similar in kind to the afghan knife, but a great deal of smaller in size, with the blades usually twenty centimetres. The Kard superficially resembles the Pash-qabz, however whereas the kard blade tapers step by step, the pash qabz blade is wide at the handgrip, narrowing acutely then tapering to a protracted slender purpose. G. N. Pant mention a dagger where the hilt opens with a spring and concealed within it is another dagger

running into the hollow of the hilt and the blade and this again houses a third smaller dagger concealed in a smaller manner. He also mentions a dagger which has a groove in the blade studded with several small rubies, so that when the dagger is raised the rubies glitter like drops of blood.



Table-2 Types of Blades

| Curved Blades | Straight Blades |
|----------------------|------------------------|
| Peshqabz | Jamdhar |
| Khanjar | Bhuj |
| Jambia | Kard |
| Bichchwa | Kindjal |
| Adya Katti | Afghan Knife |

| | |
|-----------|--|
| Khukarali | |
| Chilanuk | |
| Bhid Chir | |
| Bank | |

Spears: - A spear could also be a pole arm consisting of a shaft, generally of wood, with a sharp head. The pinnacle could also be merely the sharpened finish of the shaft itself, as is that the case with fireplace hardened spears, or it's going to be produced with a lot of sturdy material fixed to the shaft, like flint, obsidian, iron, steel or bronze. The foremost common style for searching or combat spear since ancient time has incorporated a metal spearhead formed like triangle, lozenge or leaf. The spear was one of the most important weapons of prehistoric and early historic communities. In contrast to the sword, it was in early times, the poor man's weapon. The spear was designed for thrusting rather than lateral cutting. The spear was especially preferred by horsemen, and was also used by foot soldiers as a defence against cavalry. Kanishka (A.D. 78) and many Gupta emperor were similarly depicted. Ajanta Paintings also have numerous representations of the spear. A popular picture of Maharana Pratap shows him on horseback holding a spear.



Several types of spears have been identified, based on the shape of the spearhead, the length and material used for the shaft and the design of the reverse end or the butt. Spearheads could be leaf shaped like arrow heads or long and slender as on lances. They could be flat or two sided, three sided or quadrilateral and sharp on each edge. The point could be reinforced and thickened. The spear head could be fixed to the shaft with sockets or a long Tang. The shafts could be steel, wood or bone and the length of the shaft varied depending on whether it was a weapon for thrusting, when a long shaft was necessary, or for hurling, when a shorter shaft more suitable. To enable a strong grip on the haft or the shaft by horseman, metal rings or knobs were fitted at the centre of the shafts. At the reverse end or the butt of the shafts there could be a metal cap or a decorated knob with a long-pointed end, which could be used to shove the spear into the ground so that it stood upright and ready for use whenever required.

Sometimes the spear was fitted with a crossbar or curved lugs behind the spear head and on each side of the socket. These fixed lugs were meant to prevent the weapon from sinking too far into the man or animal attacked, as it would then be difficult to pull back and retrieve.

This was also necessary in spear used for hunting. Several types of spear have been listed in the Ain-i-akbari and these include the Bhala, neza, barchha, sak, sang, sainthi, selara and ballam.

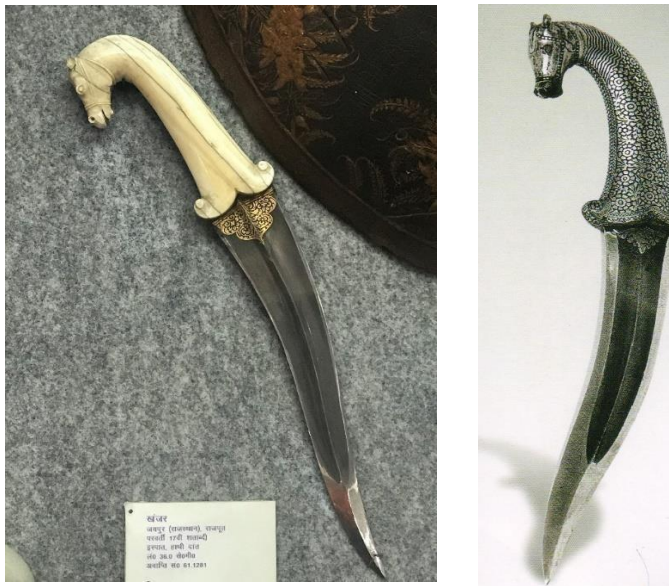


National Museum delhi



A spear's shaft made of reed, solid, wood, bamboo, ivory, cane or metal and a blade, which comes in various shapes and sizes. Basically, a thrusting weapon, it can also be hurtled through the air like an arrow. Commonly known spear types are Bhala, Barchha, Sang and Neza, depending on their length and the shape of the blades. Numismatic evidence suggests that the lance was specially favoured by Indo-Greeks and Indo-Bactrian kings in the 2nd century B.C. for cavalry and also for soldiers manning the fort. The Rajputs also preferred spears to the bow and arrow.

Knives: - Knife was conjointly popularly employed in the battle field.



Long Range Weapons

Arrows and Bow: - Bow and Arrows are available the class of long-range weapon. Once applied tactfully they might target faraway enemy. Bow which is also known by the name *Dhanu*, *Chapa*, *Sarasana*, *Sarnga*, *Kodanda* and *Karmukha*, was one of the oldest weapons. Arrow-heads of copper or bronze were discovered at the Indus valley sites. It was most important weapon of the Hindus. Not with-standing the increasing use of firearms, it continued to be incomparably the favourite weapon throughout the period under review- not only among the the Rajputs, Marathas and the Sikh but also among the Turks, afghans and the Mughals. As the best weapon for hunting and ambush, and hence in Gurrilla tactics, it is still used today along with the rifle. It was used even during the movement of 1857 and if Irvine is to be believed, the last occasion when it was used was 1894. Naturally bows and arrows were highly coveted gifts.

The materials with which the bow was made remained much the same through ancient times during the period under review- wood, usually bamboo which was easily available and cane, both being fairly flexible and strong, or horn or metal (e.g., gold, silver, copper, iron). Horn was regarded as the best material, according to the Dhanurveda. There were three varieties of the bow, depending on the material used: -

- Self-Bow, if made of one material like wood
- Built Bow, if made of more than one piece of one material
- Composite Bow, shorter but stiffer, made of different materials, - wood, horn and metal and even ivory and sinew glued together.



In the battle of Haldighati, Maharana Pratap was supported by a Bhil caste living in Rajasthan. These people were adept at operating bow-arrow. They used to shoot arrows even after aiming away.

The Bhils used to be one of the settlers in most parts of Rajaputana. They mainly lived from Abu mountain to the bank of river Narmada. These people were mostly lived in the hilly parts

of princely states like Udaipur, Sirohi, Palanpur, Idar, Dunarpur, Banswada and Pratapgarh. They lived in huts made of bamboo, wood or leaves. These people used to have shield and bow-arrows. At the time the battle, the shield people were at the forefront and used to stop the enemy's arrows with their shields. Behind them a group of 5-10 men shot arrows on enemy's army. When the Rajputs took them into war, they used to call them Kandi. In Sanskrit, the name of arrow is Kand and the one holding the arrow is called Kandi. The bhil caste is famous for its unity.

Table- 3

Numbers of Bhils

| | | |
|----|------------------|-------|
| 1 | Udaipur | 2883 |
| 2 | Girwa | 12393 |
| 3 | Mangra, Sarada | 24332 |
| 4 | Sallumbar | 8253 |
| 5 | Kanod | 4166 |
| 6 | Vansi | 4204 |
| 7 | Jhadol | 6381 |
| 8 | Dharyawad | 23815 |
| 9 | Khekhada. Bhomat | 34169 |
| 10 | Kotda, Bhomat | 13833 |

Defensive Arms

These arms were used to protect themselves from enemies, these arms had the power to stop many kinds of attacks. There are two type of defensive arms.

1. Human Armour

2. Animal Armour

Human Armour: - To deflect the strike of the opponent's sword or mace and to reduce their impact, warriors wore protective armour. Armour had to be functional. Besides shielding the wearer, it had to be light and flexible enough to allow mobility of the body; it had to be durable and affordable; also, climate-friendly.

In the early stages, leather and fabric were the materials used to make up armour. In the *Mahabharata*, that is about 2000 years ago, we find references to a variety of such armour (or Kavacha). In the Virata Parvan, the Matsya king's armour is described as 'impenetrable' and decked with a hundred suns, a hundred circles, a hundred spots, and a hundred eyes. (M6h.4.30.12)

Armour is also discussed in Kautilya's *Arthashastra* (320 B.C.). There are references by Greek historians as well, to the armour king Porus wore in the battle against Alexander. Arrain records that it absolutely was shot-proof and memorable for its strength and also the closeness with that it fitted his person, as might later be discovered by people who saw him. Porus' armour was reportedly embellished with gold and silver and it go off supremely majestic person to nice advantage. Over the centuries armour for the fighting man and his horse improved steadily, to counteract the improvement in weapons and tactics. The improvement in blade-making techniques and more efficient swords, spears, bows and arrows all helped accelerate the development of armour. Its use was in existence until the introduction of firearms. Helmets are still used by modern soldiers and body armour has been developed which is bullet-proof, yet sufficiently light and flexible for soldiers to wear in action. All good armour also had to take into account the movement of the body while fighting, riding or walking and the armour had to be constructed so that, while offering

protection, these movements could be made with maximum freedom. In the Indian summer, armour could also get uncomfortably hot.

Armours can be classified according to their construction and the type of material used:

1. Leather and fabric Armour
2. Scale Armour, where small overlapping plates, usually, metal are attached to the outer side of a leather or fabric garment.
3. Brigandine Armour, where the small overlapping plates are attached to the inside of the garment.
4. Lamellar Armour, which consists of small overlapping plates held together by laces.
5. Mail Armour, made of small interlocking steel rings.
6. Plate Armour, where large plates of metal are linked by loosely-closed rivets.
7. Mail and plate Armour combined, with plates linked by mail.

Leather and fabric were then combined with other materials very successfully. Leather armour, made of hide, are probably the oldest of all types. Several layers of hide would be worn and these were usually sufficient to deflect a sword cut. This and fabric armour, made of several layers of cloth quilted together, was generally used by the common soldier. Scales of horn, metal or even leather arranged to overlap each other, were stitched on to leather or fabric garments- to make a 'Scale Armour'. When connected strips or 'Lamellae' of metal or even leather pieces were stitched on, it was called 'Lamellae Armour'. These lamellae could also be riveted or nailed to leather or fabric. Lamellae armour consists of strips made up of hundreds of narrow plates which are riveted vertically upon leather or fabric.

Chain mail armour constructed with interlocking steel or iron rings has been the most widely used armour in most parts of the world. The construction of mail required a knowledge of

wire drawing as well as skilled workmanship and much labour and time. It was therefore expensive and could be afforded only by selected people. Mail was made up of fine interlocking rings, each ring interlocking four others. The rings could be riveted and the best mail was made thus. Alternatively, the interlocking rings could be butted, where the two ends of the rings were closed firmly but not riveted or secured in any other way. This obviously afforded less protection than the riveted variety. Much mail armour made of iron and steel wire has survived in India, and it is embellished with brass rings around the edges, forming an overall pattern.



Chain Mail Armour of Maharana Pratap

The great advantage of mail is that it's versatile and comparatively impervious to dynamical weapon system strokes, though a poking weapon will force the rings apart in spite of their riveted closure. The drawback with mail is that worn along with padded undergarments, it is extremely heavy and a drag on the limbs.

The *Chilta-Hazar Masha* or *Coat of thousand nails*, a quilted coat decorated and strengthened with brass nails, was one-time favourite armour of the Rajputs.

In “Oriental Armour”, H. R. Robinson observes (2013) “From the first centuries AD. We have remarkable sculptures of Gandhara in north west India, where strong Hellenistic or Roman feelings dominated the arts. When represented in their sculptures, warriors wear turbans on their heads, long sleeved tunics and full trousers tucked into ankle boots, such as the ancient Scythians, Persians and Parthians are always represented as wearing. Over the tunic they wear close fitting cuirasses or armour comprising breast and back plates, carved with a trellis pattern which at first glance looks like imbricated scale armour. But as true scale armour is also carved on the shoulder and breast of cuirasses, it obviously represents some other form of defence – Perhaps quilting”.

H. R. Robinson also describes about Rajputs armour “The thick coat is made of quilted fabric and velvet. It is long and full and reaches up to the knees but it is split up to the waist. It has detachable scalloped flaps over the shoulders and upper arms. The surface is decorated with nails, or rather rivets, in a scale or diamond patterns, with repeated floral or herringbone design at the borders. In some cases, a layer of thin leather was laid beneath the velvet to give a firmer seating to the nails, which were simply bent over at the back. In the centre of the breast and the back are fastened large circular and curved metal plates to protect the chest and the back. In addition to these chest and back plates are smaller horizontal plates above them and one at each side to give more cover. To the centre of the skirt section, in front of the thighs, are fastened curved plates with pointed top ends and squared bases. The large shoulder flaps, which are separate, are attached by loops and buttons and each flap has a central plate following the outline of the Fabric.

From the sixth century till about the twelfth there is little to illustrate the development of armour. It is likely that studded leather and fabric armour was used in India during this period, with some form of metal armour comprising chest and back plates being used on a limited scale. The famous Rajputs armour char-aina, literally meaning 'four mirrors'. It included a coat of mail over which four plates were attached. The breast and the back plates were large enough to give full protection to the chest and back. The side plates were smaller and cut away so that they fitted the sides under the arms. The plates were slightly curved to fit the contours of the body and were either worn over the mail shirt or were directly attached to the mail. The four plates were joined to each other with leather thongs and were hung from the shoulders by straps.



Char-aina, Museum of New Delhi

The char-aina plates were usually lavishly embellished in different styles, some being damascened in gold and other engraved or chiselled with floral or geometric designs. Helmets or tops were made entirely of mail or mail and plate together. These could be of various

shapes and designs, usually hemispherical or domed and surmounted by a spike or kalgi in which large feather were attached. Peacock feathers were most popular with the Rajputs.

Shield: - Shields represent the earliest form of defence. The sculptures at Sanchi of the first century A.D., which have some of the earliest sculptural representation of the rectangular shields with curved top ends and broad curved bases. It is surmised that these shields were manufactured from wood visaged with animal skin.

The kushan empire's shields were probably made of buffalo and rhinoceros hide, whose strength and lightness made them the most well-liked material for shields in ensuing centuries. Shields were also made of hide, turtle-shell and crocodile skin. Other materials used included wood faced with leather, as well as cane and bamboo. The best rawhide shields were made in Hyderabad, Deccan, Sind, Kutch, Bhuj and Udaipur.

The average Indian shields were 80-90 centimetres in diameter whereas smaller shields with a diameter of roughly one foot were also in use. Metal shields were also common, though these were smaller in size. The four bosses or spherical metal things before of the defend supported four steel rings on the inner side. Two cross straps or loops were connected to those rings, forming a footing to carry the defend within the hand. The shields were equipped with an arm strap additionally to the double hand loops, secured through two additional bosses spaced a bit additional apart then the same old four. The inner lining of the shields may be of cotton, velvet or brocade. Shields were sometimes perforated so that the warrior could observe his opponent's movement while at the same time taking cover behind his shield which could otherwise block his vision. In the Tower Armouries in London lies a large Rajput shield made of black hide, that has four percussion pistols concealed in the four basses. The barrels of the pistols are necessarily stubby, but they could play havoc at close distance.



Shield of Maharana Pratap

The decoration of shields, as with all Indian arms and armour, received much attention. The entire surface of shields was covered with floral patterns cut out in flat relief, then lacquered in rich colours with details picked out in gold.



Metal shields were decorated with Gold and Silver surface, engraved or polished. Like all alternative arms, Shields were also honored at Rajpoot courts. They were deemed the sole appropriate salvers for presentation of gifts.

Animal Armour: - Elephants and horses were the main animals used in wars. The horse's head and face were protected by a rigid central face plate with its nose and cheeks covered by pieces of lamellae and mail.



Udaipur Museum

At the battle of Haldighati, Maharana Pratap's horse Chetak wore an armour in which his face was like an elephant. This was done so that the elephant of the opponent army considered the horse as a baby elephant and would not attack it. This was a good technique to protect horses from opponent elephant.



Chetak's Armour

Under the horse-armour was quilted or padded lining. Mail in large pieces, as would be required for a house, is heavy and drags. The quilted lining, apart from making it more comfortable for the horse, also kept the mail in place and prevented it from slipping off. Keeping mail secure is particularly difficult on the horse's crupper as it moved.

Like horses, elephants were an essential limb of the army in India. Elaborate body armour for elephants could never have been too common. Elephant armour made of leather and the tusks are tipped with sharp metal points. The usual contingent was a Mahout (driver) and two or three fighting men armed with bows, javelins and long spears which enabled them to attack the enemy below. H. R. Robinson observes:

Mughal manuscripts often show the Mahout and a single fighting man in armour. The fighting man sits astride the elephant's back with a harness around his thighs and a rack of arms in front of him. The elephant armour is shown as of quilted fabric or leather and is rarely painted to represent mail and plates. One elephant in the book of Jengiz Khan is shown wearing a chamfron and complete body armour of elaborate lamellae, but other elephants in the numerous battle scenes are unarmed.

The Tower Armouries of London display a rather exceptional piece that includes a steel mask for the elephant's head which extends half way down the trunk. There are flaps for the ears and circular openings for the eyes. The armour protecting the throat is lamellae, connected with mail. Two large side panels, also of lamellae and mail cover the sides from the front legs to the behind legs. A lining of fabric padded with cotton was used to prevent the armour from chafing the elephant's hide.



During the battle, the elephant provided the commander with a lofty but movable seat, from which he could watch all parts of the field. Seated on the tallest elephant, the king or the commander served as a visible source of encouragement to his foot and horse soldiers spread over the battle ground. In Mughal period, the chief use of the elephant was as a rank breaker. The tallest and strongest elephants were trained and goaded to a fury and driven upon the enemy's line of battle, scattering or trampling down their cavalry and infantry. But the use of the elephant in battle had an insoluble disadvantage as well. The king or his general, presented a conspicuous target to the enemy's soldiers those who used bow and arrows and gunners (after the use of gunpowder) or even the cavalry whirling around him on swift horses. Basically, the howdah was made high enough to protect the soldiers with the exception of head and shoulders from all distant attacks. ManSingh of Amber protected himself from the furious attacks of Maharana Pratap Singh by bending down and shielding himself in the howdah during the battle of Haldighati. This was the time when chetak was injured by the sword rising in the trunk of Mansingh's elephant. At this time, Maharana Paratp had tried to kill Mansingh and chetak placed his front legs on the head of the elephant.






Haldighati museum

Table- 4

Original Arms and Armour of Maharana Pratap

| S. No. | Title | Weight | Image |
|--------|--|----------|--|
| 1 | Sword of Maharana Pratap | 1.799 Kg |  |
| 2 | Bow and Arrows of Maharana Pratap | 2.266 Kg |  |

| | | | |
|---|----------------------------------|-----------|--|
| 3 | Shield of Maharana Pratap | 2.474 Kg |  |
| 4 | Armour of Maharana Pratap | 16.295 Kg |  |
| 5 | Spear of Maharana Pratap | 2.900 Kg |  |
| 6 | Patta of Maharana Pratap | 2 Kg |  |
| 7 | Gurge of Maharana Pratap | 1.464 Kg |  |
| 8 | Danda of Maharana Pratap | 0.79 Kg |  |

| | | | |
|----|---|---------|--|
| 9 | Muzzle loader gun of Maharana Pratap | 4.63 Kg |  |
| 10 | Original Weapons and Armour of Maharana Pratap on display at Pratap Kaksh I , The City Palace Museum, Udaipur. | |   |

EVOLUTION OF WEAPONS

The Indian inhabiting the Indus valley region in the chalcolithic age, fought on foot. The horse-drawn chariot entered the Indian battlefield with the Aryans. The use of horse for military purpose also started simultaneously. In the Vedic age the armies comprised three divisions: -

- Infantry
- Cavalry
- Chariot Corps

In the Yajurveda (Chapter-16) there are many terms of military connection which are a sure guide to the evolution of military organization in the Vedic age. These terms are generally used in relation to Rudra, a powerful deity, who was feared and respected both. In the context reference is made to army and army commander, horse and the commander of the horse, chariot warrior and non-chariot warrior, Gana and commander of Gana, producer of weapons and equipment like bow, arrows, quiver, chariot, etc. fast moving.

As I have described earlier the development of weapons is not a matter of one day. The process of development of weapons started at the same time when weapons started. The first stage of the advancement of weapons is started with the Harappa civilization. The first evidence of the sword as a metal-edged weapon can be traced, roughly around 3000 B.C. this period's sculptures and painting reveal the use of different types of swords, daggers and axes.

These weapons were made of copper as well as bronze. The sword blades are shorter than those of the later periods and all made of copper. Some of these weapons are still preserved in the National Museum, Delhi. Surprisingly, the hilt and the blade are of a single cast. The weapons found in the Indus Valley were made of copper and bronze, yet these were not worthy of the time to come due to which these did not survive and failed to influence the subsequent development of the sword. The development of weapons proceeded when the Aryans emerged in 1520 B.C.

Aryans adopted a style and form which was quite different. This is probably because the Aryans brought a different type of sword with them. In comparison, copper and bronze are very soft metals and it is difficult to maintain a sharp edge on swords. But iron is being harder retains on edge for a much longer period and is more suitable for swords. The earliest iron swords had two chief forms of blades, both of which were meant for thrusting and jabbing as opposed to cutting or slashing.

The next stage of evolution of weapons can be traced in Mauryan era where Kautilya mentions about the sword. This is the 'Asiyashti', which is described as very sharp and long. According to Kautilya, the handles of weapons were made of the horns of the rhinoceros and buffalos, of the tusk of elephant, of wood, or of the root of bamboo. The swords described by Kautilya find expression in the famous sculptures at Amravati in Andhra Pradesh and at various other sites.

One of the earliest representations of the sword in sculpture is from 2nd century B.C. This is a Buddhist fragment from Bharhut. These are short swords about two and half feet in length, with very broad blades. These blades are straight, double-edges and with rounded tips. The hilt at the two sites differs in detail but show broad pommels and ring guards.

The next stage in the development of the sword brings us to the sculptures of the first and fourth centuries A.D. At the time of Kushan empire. The Kushan's kingdom was divided into two parts, Gandhara and Mathura. The same effect is also seen on their weapons.

The Gandhara style of blade of the north-west is brief with a centre rib, a handle with a reasonably tiny platform pommel and a guard that's very little over a band. The swords, that seem in Mathura area unit leaf bladed kind with a handle, the platform pommel of that is as broad because the guard ring fitted to the splayed root of the blade.

A frieze in a cave at Udaigiri in Orissa, belonging to the second century A.D. throws more light on the history of the sword, for the sword depicted here are unrelated frieze shows a man and a woman fighting with swords. The man wields a long sword with a rounded tip which is very much like the later Rajput Khanda. The woman is swinging a broad backward curved blade which is not unlike the broad bladed *Tegha* of the sixteenth century. Both the khanda and the Tegha reappeared several centuries later and although there is no direct

evidence of a continuous tradition, it is possible that late medieval sword forms may have had their origins much earlier in history than surmised.

We get information about the next phase from the coins of Samundra Gupta (335-380 AD). He was a great warrior and called Napoleon of India. The coins show a variety of weapons and the inscription on them mention the qualities of Samundra Gupta, from whom the wounds of battle were marks of beauty and honour. According to these inscriptions, he was a fearless warrior, brave like tiger (Vyughra-parakrami), the hero who could fight hundred battles (samrasata), which left on his body their scars (Vrana) as marks of decoration and beauty, scars of various kind caused by the different weapons of war, such as Parasu (Battle-axe), Sara (Arrow), Sanku (Spear), Sakti (Spike), Prasa (Barbed Dart), Asi (Sword), Tomara (Iron club), Bhindipala (Javelin), Naracha (Iron Arrow) and Vaitastika (Scimitar).

The sword of this period appears in sculptures in the Udaigiri Cave in Orissa and the khandagiri hill. Gupta swords represent a significant step towards the development of later development. The swords are longer, slenderer and more proportionate and suggest that a superior quality of metal was in use. The hilt also shows more sophistication, with the grip bulging in the middle and narrowing at the upper and lower ends, a feature characteristic of the modern hilt and which may be termed the standard Indian hilt. The weapons depicted on the Gupta sculptures may be considered to be the precursors of the later Khanda.

Between the seventh and twelfth centuries, a number of dynasties emerged in north India, out of which three were main- Rashtrakuta, Pratihara and Pala dynasties. No special development has been seen in weapons during this period. Pala swords are generally short and have thick blades, unlike the slender and superior Gupta swords. Remarking on the Pala swords. *Rawson Comments*: Pala swords follow only the two main forms of the early Indian swords, the leaf bladed and the straight parallel edged. The tips of the both types are rounded. The pommel of

the hilt of all the swords is always a broad circular platform and the guard is most frequently a thick ring but fairly often the root of the blade is played out into a guard that looks like the duo foil of the Indian hilt. No Pala sculpture or painting show scabbards and would suggest that naked swords were carried in the hand.

Rajputs appear in the ninth and tenth centuries. They were an upper caste kshatriya who were very proud of their clans. A total of 36 clans of Rajputs are known, of which the Chauhan established themselves in eastern Rajasthan and Tomars in the Haryana Region. Parmar clan ruled Malwa and the clan Chandellas ruled the area around Khajuraho.

During this period, war became a part of the life of warriors and weapons had become very common for fighting the war. The epic poem Prithviraj Raso, written by Chandbardai, not only tells us about king Prithviraj Chauhan of the Chauhan dynasty but also provides important information about the weapons used at that time.

Prithviraj Chauhan had developed the Khanda (sword) into broad straight blade. This was not only elegant but showed highly developed craftsmanship. It is for this reason that Khanda has survived into modern time. During this period, aesthetic considerations also started playing a keyrole in sword designing and the embellishment of the weapons became important. The development of a superior sword during the medieval period also suggests that the art of swordsmanship had become highly skilled by then. It is interesting to note that the technical improvement in weapons made during medieval times added not only to the functional properties but also enhanced the aesthetic qualities.

The major proof for the history of the weapon within the eleventh and twelfth centuries is gleaned from the sculpture at the Nilakanteshwar temple, the Harshnath temple, both are in Rajasthan and from the nice Chandela town of Khajuraho. At the Nilakanteshwar and Khajuraho temples, swords that are similar in most respects seem. The blades slender mid-

point, at the waist, and are spoon formed with rounded tips. Additionally, the blades have a centre ridge. The hilts have broad, circular, platform pommels, head by a knob. Others have pommels formed like domes, once more head by a knob. Others have pommels formed like domes, once more head by rich man. The Khajuraho temples were inbuilt the tenth and eleventh centuries by the kings of Bundelkhand, who were Rajputs of the Chandela clan. It's worth describing in short, a number of the opposite weapons portrayed at Khajuraho though they'll in a roundabout way follow the road of development of the sword that we've been following. A myriad variety of swords seems on these lovely temples: ambiguous straight swords, thrust swords, cut swords, even curvilinear swords. Nice military processions show troopers with arms stretched down, carrying swords during a horizontal position. Looking scenes abound, showing hunters on foot et al mounted-on horseback, carrying or victimization swords and spears. Curiously, ladies are shown wielding swords or carrying swords, daggers and bows.

At the Harshnath temple at Sikar there is a representation of a long sword, again with a ridged khanda blade. The hilt of this blade is similar to the Khajuraho and the Nilakanteshwar swords mentioned earlier. These representations, further supplemented by the Jain miniatures of the time, would suggest that this is the classical pre-Islamic Rajput sword, the direct ancestor of the Rajput khanda. Some ornamentation in relief is also shown. A second group of swords that are seen on a relief at Harshnath needs special description as the swords represented here are ones with forward angled blades and are encountered for the first time. The forward edge is curved and the reverse edge is sharply angled forward. This sword is important not only because it is a southern type but is also deemed by some authorities to be the ancestor of the weapons used by the Rajputs like the sosun patta and the Nepalese kukri (both dealt with later).

CONSTRUCTION AND TECHNIQUES

The manufacture of weapons started long ago but their development continued with time. If we pay attention, we would know that the technique of making weapons has been changing with time.

At the time of the Rajputs, basically four folks are needed in keeping with their capability and necessity of the work to be done.

- One, who manipulates the mechanical bellows,
- A hammer, who hammering and beating the iron,
- The foreman,
- The operator, to take a chunk of iron with a combine of long device on an anvil for shaping.

So, by continuous application of differing pressure of the hammer, the iron gets sharp. Finally, they gave the form of weapons.

At the time of Maharana Pratap, a nomadic community of blacksmiths used to make weapons for him. This community called Gadulia or Gadi lohar. This were the community who left Chittor after the Mughal army captured Chittor. Gadi lohar from mewar and malwi lohar from malwa used iron and copper to make weapons, which was found the nearest places in Rajasthan. They were very adept in their work and prepared very deadly weapons.

Rajputs liked foot fighting with a sabre tulwar, a khanda and a spear. That didn't exclude the employment of various types of weapons and equestrian fight, it's alone regarding traditions and preferences. The techniques with a spear square measure quite simple associated an instinctively accessible set of exercises that's innate in exercises with a pole as a result of the idea for them. Despite the prevailing style of thrusts there were also chopping techniques. this might be explained by two factors: the utilization of chopping blows spear blade (wide and

sturdy spearheads allowed to undertake to so) and used combined weapon by mercenary Rajputs at intervals the Mughal Army at intervals the seventeenth century: the weapon had a protracted worker, a spearhead and a spear butt, but the spearhead was integrated with associate oversize club. However, the foremost common types of spears corresponded with the artistic style. The short spear for a foot battle differed in barely a wider purpose and a rather thick, typically bamboo employees. The name of this type of spear (that is employed inside the system in question) is “ballam” – it’s nearly just like the spears of Rajputs in historical descriptions.

Existence of techniques with a spear, to be actual, the simplicity and additionally the natural character of its elements. Let us assume that it desires to be very necessary to indicate the beginner troopers basic field skills throughout this region of Rajasthan, what was still no doubt useful in associate passing military community “akhara” associated in an passing village Rajput college among the nineteenth century and earlier.

The stick- The essential teaching methods of weapon application supported the skills of handling a stick is that the final principle for all combat systems of India and Asian country. The system in question isn’t an exception, where the skills of applying a stick square measure the premise for the complete any teaching. At an analogous time not the utilization of the stick itself as a weapon is of verdant price, but that form of movements that square measure necessary among the strategy of teaching the handling this object. It ought to seem strange but the movement basis of this methodology seems like an accentuated in an exceedingly manner human step or a stride which contains the ultimate for all north-western systems bedrock of moving “pentra”. Throughout this technique the pedagogy, victimization of this principle, ends up in certain movement skills with no charm to any sacred meanings or miraculous characteristics. Once the talent is nonhereditary the “pentra” itself continues existing alone as a result of the initial movement once taking part in traditional forms.

The sword- Once obtaining the foremost two skills, namely, the movement skills and well-developed wrists among the strategy of employment with a stick, the pupil has no tons of queries on the strange kind of the handle of the classical Indian sabre referred as “tulwar”. Excluding the possibility of holding the handle not very tight and let the weapon flip spherical among the hand, the handle of the “tulwar” makes it potential to use totally different principles of applying long blade cold steel. These principles area unit merely derived inside the instance of weapon handling techniques with the cross hold of the handle, that selection and choice area unit extraordinary in India. At an identical time, it’s price accenting that an identical principle is applied once handling blade arms with a typical longitudinal form of the handle. The employment of a defend, a parrying weapon or a second steel inside the hand doesn’t modification the conception and is non-obligatory. At an identical time, it’s necessary to note that twin wielding swords warriors were very important in our country.

Short blade weapons- Indian Daggers with common design and a transversal handle “katar” fall into this category. The special feature of these Katars is that the reverse grip is carried in making them. Often such weapons are used to attack.

If we talking about the second group, we can include those small bladed weapons which can be used for counter attack or can be used for defending.

Additional Arms- The system doesn’t study on an individual basis such trendy the Hindu forms of weapons as maces, axes and pointed axes. But, as noted on high of, properly trained movement ability permits to manoeuvre without thinking freely, offensive and defensive with any weapon more like none within the slightest degree. On the observe with none weapons within the slightest degree, it’s enough to say, that the formed ability of the trained wrist joint, that holds a weapon at the time of the attack or defence, let’s use the wrist joint itself

efficiently as a contract weapon. And thus, the power of movement and stepping will allow to feature the free leg to the offensive or defensive actions.

Strategical Concept and battle Formation

The art of war or conduct of war relates to the formation or conduct of the fighting. All these hinges on strategy, tactics and logistics. These may be described as partners in war which must work in union but strategy dominates as it covers coming up with of war, and is that the art of conductivity war, - of sticking out and leading and mobilising and coordinative the complete resources of a state and also the campaigns towards attaining the political object of war. It deals with strategies used to deceive the enemy, plans for a campaign and all broad aspects of waging war. It pre-emptes almost the whole field of generalship, short of the battlefield itself. Tactics is the art of executing plan, of fighting, of making army dispositions. Logistics is the practical art of moving armies and includes ways and means to work out the plans of both.

Many such strategies or “Vyuh” were created in Ancient war of Mahabharata, fought years ago. In this war, to be fought between the Kauravas and the Pandavas, a variety of strategies were devised.



Here, in this picture, two army formations related to army have been illustrated by the artist. On one side is chakravyuha or the formation of concentric circle in which the soldiers kept rotating in unison. On the other side is shown the makarvyuha or the formation of the crocodile.

The Chakravyuha was used by the kauravas, led by Dronacharya on the 13th day of the battle of Kurukshetra. It was a complex formation which was easy to enter, but required extraordinary knowledge and valour to exit from.

Similarly, there were some other strategies used in this war -

- Mandal Vyuh, made by Pitamah Bhishma on 7th day of war.
- Chakra- Shakat Vyuh, made by Dronacharya to save Jayadratha from Arjuna.
- Ardh-chandra Vyuh, Made by arjuna on 3rd day of war in response to the Garuda Vyuh of Kauravas.
- Vajra Vyuh, made by arjuna on first day.
- Kanch Vyuh, made by Dhristudumn on 2nd day.

In Maurya Period, Kautilya might assess the importance of a strategic device, whereas he aforesaid that “an arrow discharged by an archer may kill one person or may not kill but the intellect operated by a wise man could kill even children in the womb” (Arthashastra, Kangle, II, P-458, V.51.).

Kamandaka, author of eighth century, advises the position of commander in chief within the interior of knowledgeable warriors fighting courageously and guarding each other. normal troopers, in keeping with him, ought to be placed within the middle or central division of a formation of an array, mighty elephants ought to be placed within the front, meaning by, the foot and cavalry ought to present itself behind the war elephant. His deliberation to the separate arrangement of foot, cavalry and elephant forces with a sufficient gap in between to avoid a clash or obstruction at the time of their movement or retreat, likely suggests the system of methods of various wings of army.

However, it's vital to grasp that to what extent the on top of ordered down rules were being followed in apply. Therefore, so as to seek out the real situation, one should get in the main points of two vital battles, provided by the Rajput resources.

The usual strategy of forming a ‘Vyuh’ was to divided the entire army into five parts called as Harawal, Chandawal, Varangal, Tarangal and Gol. The ‘Gol’ was the portion in the mid of the four wings that is the front, the rear, the left and the right. The chief commanding officer generally occupied this mid portion.

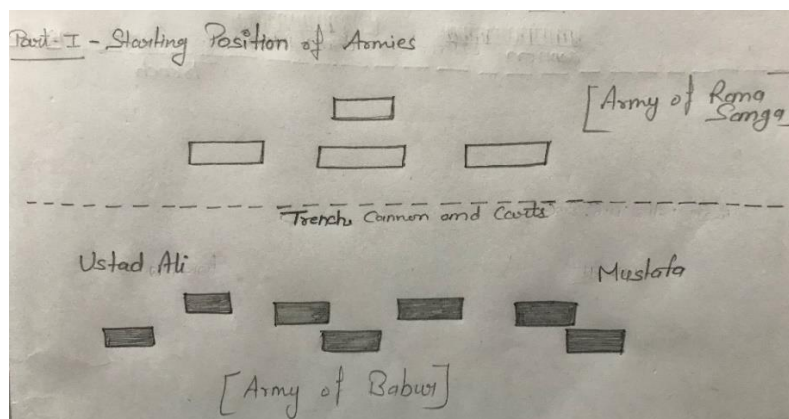
War of Khanwa:

Now I want to discuss about the strategy of Battle of Khanwa. Khanwa’s war was fought close to the village of khanwa, in Bharatpur district of Rajasthan, on March 17, 1527. This battle was sharply fought. As Babur said, Sanga had quite 200000 men as well as ten thousand afghan cavalrymen, supported with associate equal force fielded by Hasan Khan

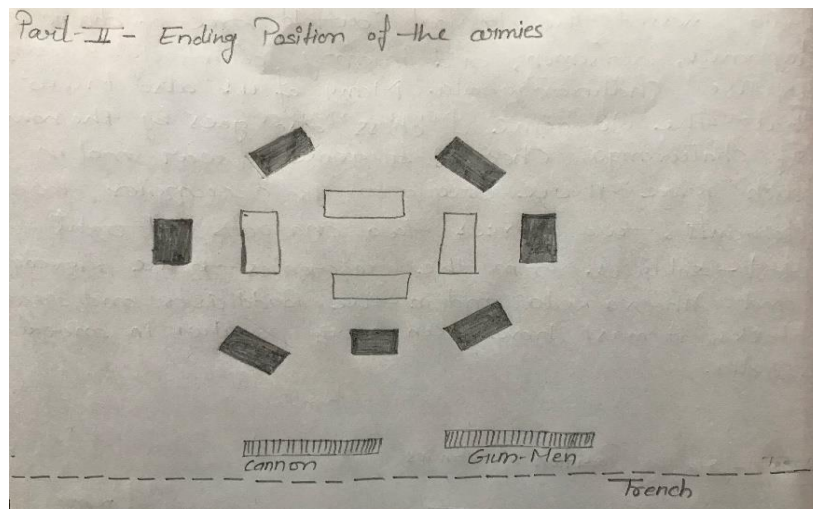
Mewati. According to Babur, his soldiers were scared of Rana Sanga. Nobody was talking boldly during the war. To increase the morale of his army, Babur gave a trench in front of his army in the battlefield and on the other side of the trench a row of carts was made and bind them with chains so that the front army could not attack suddenly. After sometimes of the beginning of the war, Rana Sanga became unconscious after being badly injured. To protect his life his soldiers took him out of the battlefield to a safer place. As a result, Rana lost this war.

Babur's strategy in the field of war was full of good technology. He made trenches in the war zone. To hide his soldiers, the carts were tied up with chain. He ordered his soldiers to attack in the middle, causing Rana Sanga to be hemmed and eventually defeated.

Battle Formation of Khanwa



According to this picture, at the beginning of the war, both the armies were standing in front of each other and the trenches were engraved between these two armies that Babur had adopted for the protection of his army.



And at the end of the war, the army of Rana Sanga was surrounded by Babur's army and was killed. Rana Sanga lost this war but there were many reasons for the defeat of this war like Traditional way of fighting, weak war style, and paying greater attention to cavalry, weak horses as compared of enemies' horses, no use of fire arms and their nobility.

Why Rajput lost this war?

There are several reasons for Babur's victory in the Khanwa War, one of which was that before the war, Babur made a detail analysis of the battlefield. The second reason was that Babur fastened cart with iron chains in the battle field for the protection of his army. These carts gave shelter to the horse and the wounded soldiers in the battle. A small gap was placed between these carts, this gap gave the mounted troops a chance to attack the enemy suddenly.

To lengthen the line, ropes engineered of raw hide were placed over wheeled picket tripods. Behind the tripods, matcglork-men were placed, who could fire and, if needed, advance. The flanks got protection by creating by removal ditches. Additionally, to the regular force, little contingents were unbroken on the left flank and ahead for the tulghuma (flanking) plan of action. Thus, a poeowerful offensive-defensive formation had been used by Babur.

Babur used artillery for the first time in warfare in India. The Rajputs did not have any artillery and did not know how to adjust their tactics to it.

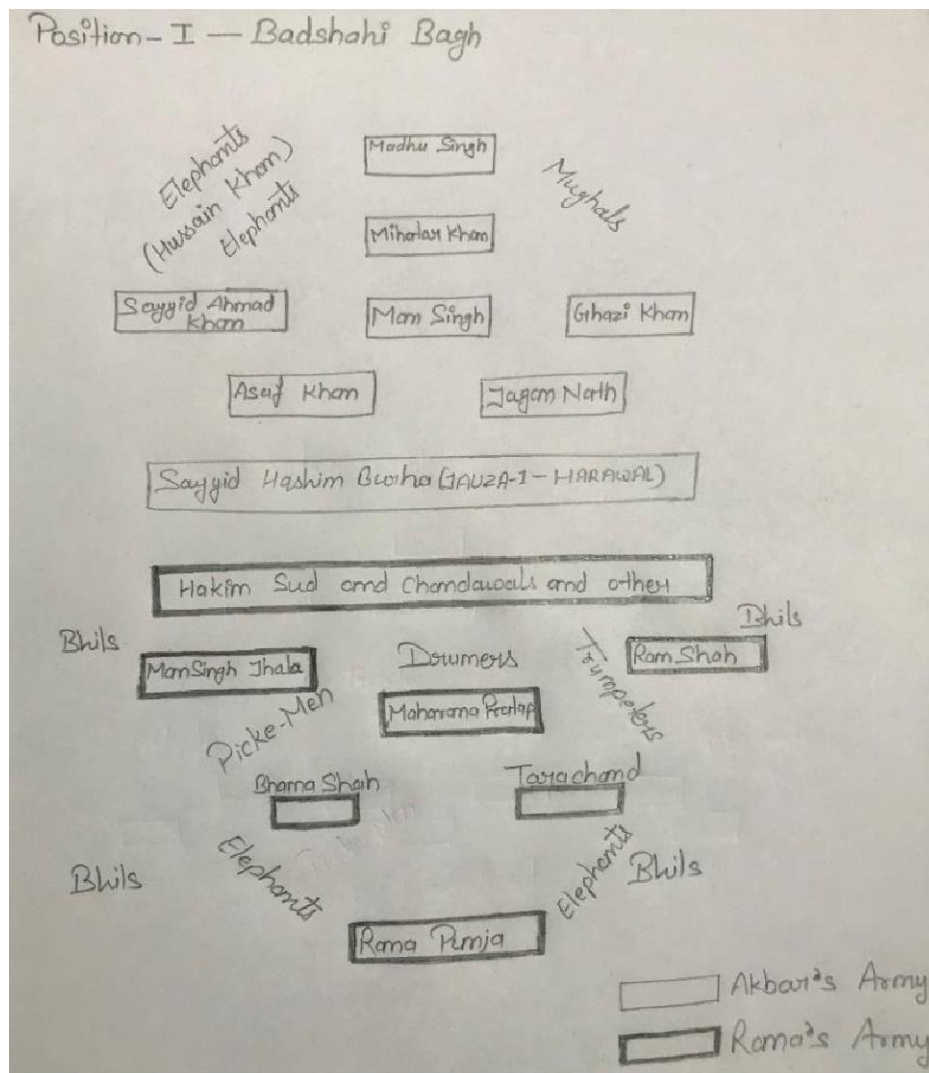
The Mughal were the master of strategy as well as tactics in the field. Babur supervised and directed the war as a mobile commander-in-chief, as in a modern war, with an eye on, and control of, every sector of his army. Maharana plunged headlong into battle literally leading his force into the field, mounted on a caparisoned elephant, thus fully exposed to enemy view and marksmanship. He largely depended upon sheer physical force, personal valour and frontal attacks of the enemy.

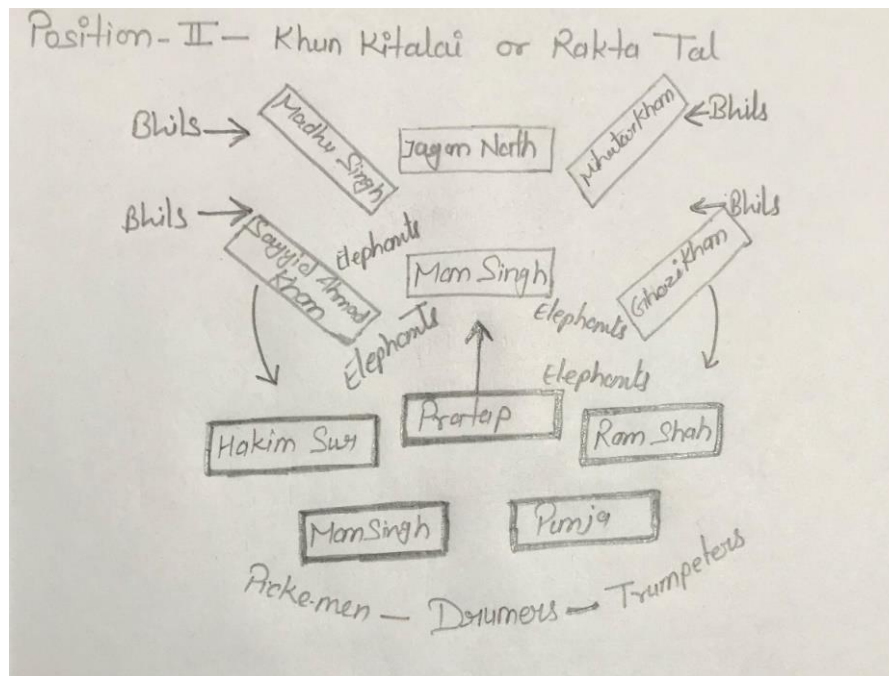
Rana Sanga, fighting in an exceedingly ancient method, attacked the Mughal army's flanks. He was prevented from breaking through by reinforcements sent by Babur. The carts and musket men were ordered to advance, pressing on the Rajputs and their allies. The battle that lasted for less than ten hours, was bitterly opposed and have become a passing brutal affair. At an important moment of battle, the defection of Silhadi and his contingent caused a split at intervals the Rajput forces. Amphibian general Sanga whereas creating an endeavor to reconstruct his front was wounded and fell unconscious from his horse. The Hindustani army thought their leader was dead that resulted in disorder, therefore permitting the Mughals to win the day. Despite giving up a gallant fight, general Rana Sanga and his allies suffered defeat. along with his numerically large army as compared thereto of Babur, Sanga perceived that he would win the battle against Babur. However, Babur's ways and also the economical use of artillery were out of match for amphibian general Sanga. The Rajputs had no answer to the wheeling ways of the Mughal cavalry. Babur's artillery had won the day for him; it had finally established the Mughal rule over India.

War of Haldighati:

In this battle, Maharana Pratap used Gorilla war method. A tribe named Bhil gave the support of Maharana Pratap in this War. These people were dextrous in running bow and arrow.

Strategy of War of Haldighati





In the battle of Haldighati, Man Singh might be killed by Maharana Pratap if he did not hide himself behind the Howdah on the elephant. This was the time when Chetak was injured by the swords tied in the trunk of Man Singh's elephant and after some time he died.

Maharana Pratap had adopted the Guerrilla warfare system for this war and due to this, he defeated a large army of Akbar. Maharana Pratap fortified the entire mountainous region of Mewar and changed the area into a strong, safe fortress with the view of military system. With the appointment of military troops on all the small routes of the entry into the mountainous part of the Mewar, the administrative and military system of Mewar was decentralized, which did not spread chaos simultaneously upon the invasion at one area. Arrangement of intensive surveillance system, intelligence system and safe places for treasury, arsenal, food storage etc. were installed at safer places. He well established the state's treasury, production, trade, industry in the mountainous part through which the general requirements of public life could be met. Maharana Pratap used the guerrilla warfare system to interrupt the Mughal army; the Mughal police stations were never safe in Mewar and feared attacks at the Mughal localities too. By making Chavand the capital, Maharana Pratap

maintained close contact with Sirohi, Eder, Dungarpur, Banswara, Gujarat, making it easier to get support for the Mughal resistance. As a result of the diplomatic efforts and successful strategy of Maharana Pratap, the Mughal army could not enact Mewar after 25 years of continuous efforts.

The word Guerrilla, used in the sense of “*Chhapa-maar*”, is Spanish. In the Spanish language it means short war. Broadly guerrilla war is fought by troops of paramilitary or irregular troops attacking the enemy’s rear or side. In addition to the actual war, the guerrillas also act as an interdiction and to spread terror in the enemy. The first use of this warfare in India was used by Maharana Pratap against Akbar. Later, Chhatrapati Shivaji Maharaj moved against Mughals after being inspired by him.

The principle of guerrilla soldiers is- kill and flee. They attack suddenly, disappear and appear only a short distance away. They keep very few items with them. There is no controller for them, so their functioning is not interrupted. The guerrilla army usually defends itself by having a strong force attacked by them. They have special intelligence. For their safety, they keep a system of information providers.

The purpose of this war is to reduce the influence of the enemy’s regular army. To fulfil this objective well, they work behind the enemy. Along with this, it also helps in regular army operations. The soldiers of the guerrillas do not remain soldiers. They also damage logistics, bridges and other such means, which can hamper the enemy army.

In this battle, Badauni asked Asaf Khan – “how are we to know in these circumstances to distinguish between the friendly and hostile Rajput? The answer was that people from any side should be killed, that would be a boost to Islam.

This indicates that Akbar and their army did not have any meaning at all about how and when the Rajputs of India were killed, their intention was that their ISLAM must continue to grow.

Only 20000 Rajputs warriors faced Akbar's vast army. According to historians, this war won by Akbar. But after 450 years, professor Chandrasekhar Sharma and Professor K.S. Gupta of Rajasthan University have proved that this war was won by Maharana Pratap. According to them, even after this battle, the right of Bhu-Daan was going with the name of Maharana Pratap. Besides, coins were also going on with the name of Maharana Pratap. According to professor Sharma, if Akbar had won this war, Man Singh and Asif Khan were not punished for staying outside the court for 6 month and repeated military campaigns were not sent to Mewar.

While Colonel Tod also called Haldighati the 'Thermopoly of Mewar' in his book, Dewar's war is described as the 'Marathon of Mewar' (Battle of Marathon 490 BC Marathon in a place called Greek Chemiltiads and Darius of Persia during the war in which Greece was conquered, Greece showed unique valor in this war), Colonel Tod took the gallantry of the Maharana and his army, the war skills of Sparta warriors. Received heroic stating wrote that they were not afraid even of their 4 times bigger force on the battlefield. The Dewar war was planned by Maharana Pratap in the jungles of Manakiavas located in Aravalli. With the funds received by Bhamashah, he prepared a large army. The ravaged jungle, deviated hillsides, Bhils, Rajputs, the constant attack and logistics of local residents' guerrilla troops and robbery of arms had deteriorated the condition of the Mughal army.

According to Dr. Rima Hooja "Maharana Pratap did not surrender, was not captured, not killed, none of his substitute commander's surrendered and Akbar did not announce victory in his court (darbar).

Rajputs were very brave and used to give life to their motherland. They never forget their principles, even if they were in the field of war, they never used to attack any weak, unarmed, women, children and elderly persons. They always respected the elders and women.

The only mistake made by Rajputs was that they kept fighting with their nobility. That was not Mahabharata period that the war started with the sound of the conch with the first ray of the sun. That was the time when many invaders like Mughals wanted to rob India. These invaders were dreaded people. There was no rule of war for these foreign invaders. They used to target women, children and old people during the war. On the other hand, Rajputs were the opposite of all this. Their moral values were much higher. They were very great people. It was in their nature to follow the rules. Ethics used to deviate in their blood. Under any circumstances they did not forget their moral values.

LATER DEVELOPMENTS; FOREIGN INFLUENCE

As explained earlier, there has been a change in weapons and military strategy over time. But the most important step in this change was taken in Khanwa's war. Indian warriors did not know about artillery before the war of Khanwa. The use of artillery by Babur brought Khanwa's war in his favour. This war caused a new challenge for Rajput warriors. It would be wrong to say that the Rajputs and their weapons were weak in any way, because if the first round of Khanwa war is seen, then we find that Rana's army forced Babur's army to retreat. But Rana was knocked unconscious by the arrow, which led to the war in favour of Babur. But still the use of artillery posed a new challenge.

The use of artillery began with the war of Khanwa in India and it turned Indian strategies towards a new direction. Now it is considered necessary to pay attention to it. By the time of Maharana Pratap, the use of gun had started but there is no evidence of the use of any kind of artillery from the side of Maharana in the battle of Haldighati and the matter of having light cannons with the Akbar's army said by some historians but there is no convincing evidence

of this. But due to this foreign discovery a new chapter was added to the Indian War Methodology.

The Artillery is in addition responsible for the large weapons utilised by ground troops to destroy enemy. Artillery trooper's unit of measurement brought up as 'Gunners'. Mughal artillery fogbound a variety of cannons, rockets and mines utilised by the Mughal empire. This powder technology contends a vital role within the formation and enlargement of the empire.

Now we discuss about the change in other weapons after the arrival of foreign invaders. From about the 13th to 16th century A.D., very little is available concerning the development of the sword in India. During this period Turks and Afghans had established themselves in north-east India and it can be assumed that the influence of Persian armourers was dominant in the north.

The Talwar and Shamsheer both were used by warriors that time. It is necessary to distinguish between both of them. The Talwar was used both by Mughals and Rajputs of the north, though in southern Rajasthan and central India, the khanda continue in use. The Talwar has a curved blade, although there may be considerable variation in size, curvature and quality. It also tends to be of uniform width from the root till it nears the point or nok. The curvature of the blade favours the cutting and slashing method of use. The hilt is the standard Indian hilt which is sometimes termed the Indo-Muslim hilt. It has a button on top, a circular flat pommel, a grip which narrows at the top and bottom and thickens in the middle, short heavy quillons and small langets. Talwars generally have the ricasso (Khazana), or the short blunt portion on the edge near the hilt, to safeguard the index finger, which is sometimes hooked round the blade below the quillon. The ricasso was never found on Shamsheer.

The shamsheer, which is Persian in origin but found widespread use in India, has a blade with a deeper curve. This renders its point almost useless but makes it a perfect cutting and slashing weapon. The blade is narrow, thick and continuously tapering from the root to the point, unlike the Talwar blade which is the same width through most of its length. The hilt is pistol shaped with the pommel projecting to one side, sometimes covered with a metal cap or an embellishment. The grip is straight and simple. The cross guard has long slender quillons. Knuckle guards are rarely seen on shamsheer hilts. The smaller version of the shamsheer is called the nimcha and may have been meant for the use of children.

Abul Fazal describes Akbar's arms thus;

All the weapons used by his king were named and had arank. In addition, there were 36 swords, of which daily a sword was sent to the king's room and the old sword was brought back from there until its turn came again. Apart from this, 40 different swords were kept ready. They were called kotal swords and whenever needed they were replaced with Khasa swords. He goes on to say that Akbar practised with his sword every day. Sixty-nine weapons in use are listed and include, curved swords, the *khada* (straight sword), *gupti saca* (sword stick), *jamdhar* (broad dagger), *Khanjar*, *Jambua*, *katar karad*, etc.

The aesthetic development of the Indian sword reached its zenith during the Mughal period. Ideally embellishment and ornamentation should increase the aesthetic appeal of the weapon, but not impede its function. Good quality *talwar*, *shamsheer*, as well as the Rajput *Khanda* and many other swords forms, development a variety of ornamentation on the hilt and the blade. These included inlay and application of gold and silver to steel and iron. This is sometimes referred to as damascening, and with some changes in technique it becomes *koftgari*.

Under the Mughal, weapon was developed and the design reached its peak during the reign of Jahangir. Not only was the Mughal sword a superb cutting instrument, but also one with great

aesthetic appeal. This combination of functional efficiency and display value added greatly to the mystique of the sword.

Practicality and aesthetic were in balance, so that the sword had the flawless perfection of a work of art. In later times, during Aurangzeb's reign, the desire for display overcame the importance of function and the sword became a mere ornament, a personal piece of jewellery.

The Mughals established workshop (karkhanas) for the making of sword and some of the most exquisite items still in existence come from this period. But the tradition was also widespread across the countryside and villages and boasted concentration of men of the lohar (iron smith) caste who worked as confederations of producers and sold their weapons in local or regional markets. In some areas, such as Rohilkhand in the north and in Rajasthan, the skills of sword making and swordsmanship are preserved to this day.

PRINCIPLES OF STRATEGIC INTELLIGENCE

Although ultimately concerned within the fighting, the intelligence corps is taken into account one amongst the arms as a result of it provides a lot of the data that a commander uses to create choices on the field. Intelligence personnel are unit accountable for compilation and analysing data concerning the enemy and their positions, movements, instrumentality and ways, the parcel and therefore the weather. In the battle of Haldighati, Maharana Pratap used this type of army. These people told Maharana Pratap, how Man Singh is operating his army, where is his army's stop and what kind of strategy is he planning. All these things greatly helped Maharana Pratap. In this battle, Maharana Pratap had a plus point that he was in the mountains and Man Singh was on flat land. Due to which Pratap came to know about every activity of Man Singh but Man Singh was completely ignorant of Pratap's activities and his strategies.

Army intelligence has always done its job well. Even today every country keeps army intelligence so that the activities of another country can be monitored.

Chapter-5

Military Organization, Education and Training

General Remark:

Medieval war technology resembles the old times. The entire military operation revolves around the elephants, cavalry and foot troopers. The cavalry and foot contend important roles in the war, elephants perpetually occupied the main part.

The war technology among the medieval quantity, significantly marked by the employment of upper weapons and construction of formidable forts. These weapons were mainly hand operated ones. every elephants and horses were very important arms of defence, to boot to foot troopers and chariots. The equine chariots contend a giant role among the warfare throughout. A very necessary element of warfare was construction of forts. The strong fort wall was boxed in by a trench, in tested with crocodiles. Hills with large house of land were typically most popular for the event of forts. There had enough house for cultivating food things at intervals the fort house and granaries were jointly designed for preservation of food grains. These were used throughout the number of besieging of the fort by enemy. In most cases encirclement on the fort over once the food keeps at intervals the fort got exhausted. In medieval quantity, horses of upper breed were foreign from central Asia at high prices. There are constantly Arab traders in every capital of Indian regional kingdoms. There area unit accounts of kings mistreatment mammal genus domestics slaves like security guards at palaces in harems and ports. They'd extensively used several strong South African troopers to impart coaching and together guard very important palaces.

Indian society was primarily divided into a pair of sections-warriors and non-warriors in eighth century. The Indian army wasn't wholly professionalized throughout this era and co-ordination between commanders and their troops wasn't maintained in its correct sense. College of Distance Education Medieval India: Society, Culture and religion Page sixteen

The Turko-Afghan attacks of the medieval quantity challenged the prevailing war technology of Indian army. Their military operations were spear headed by light-weight cavalry and heavy cavalry against the Rajput army usually dominated by elephants. The sunshine cavalry with mounted archers and armour piercing qualities of the cross bow were the numerous blessings of the Afghans and Turks. Their cavalry force equipped with horse-shoe enjoyed and edge over the barefooted cavalry forces of the Rajputs. Field munition was an added characteristic feature of the Turk- Afghan battle techniques. However, the battle was ultimately determined by cavalry charges. fireside arms contend entirely a subordinate role among the battle. Generally, battle was started with the firing of canons that lasted for two or three hours therefore the cavalry took the lead.

CLASSIFICATION OF ARMY AND ANIMAL ARMY

The army of Rajputs were divided into 3 parts:

- 1) Infantry
- 2) Cavalry
- 3) Animal Army

Infantry: - The foot area unit the fighting troopers who fight on foot. The term was applied every to troopers armed with hand weapons like spear, sword, slings and bows. The objectives of victimisation foot were to occupy enemy territory, military blockade and hold

ground. It had been properly protected with helmet, armour and shields. The foot is capable of waging and yielding the drawn-out battle in any season and on any tract.

The foot troopers were numerically larger than the rest of the military. They carried weapons from one place to a unique, they were named in native archers, swordsmen and non-combatants consisting of door keepers, watchmen groomer, drill and discipline. Generally, their payment was selected the arm and conjointly the caste to it they belong. They possessed bow arrows, spears and affordable arm.

Cavalry: - The cavalry was originally soldier United Nations agency travelled and fought on horse-back, sometimes with swords or lances. Horse contends a vital role within the field. It had been like minded for warfare plan of action in military campaigns. The utility of the horse decided by the kind and size for expedition. The utility of horse in respect of cavalry charges, raiding, communication, arms carrier etc. Horses in Mughal quantity were used for speed endurance and gracefulness. to reinforce its speed light-weight weapons like bow arrows, spear, swords etc were used.

The use of saddle and conjointly the stirrup gave an additional advantage to the mounted warriors. The saddle gave a firm surface to defend the horse from the load of the rider. The saddle protected the rider from movement of horse spine and whither. The stirrup facilitated toe rest among the toe loop. As a result of that rider had a bigger leverage with weapons. This increased stability of rider and provided quality to the mounted archer. The horse shoe was jointly used for the protection of hooves of the horses so that they may perform higher for the military. Horse swivel jointly came to applied in our region; these were termed as ghurhnal.

Cavalry was an enormous wing of Indian army in every ancient and medieval quantity. Breed of horses used were Turki, Yabu, Tazi, Jangla, Rami, Kumer, Surang. the best breeds of the horses were Turki and Tazi. the quantity of per month for maintaining the Tazi breed was

twenty Rs. To 22 Rs., for Yabu breed was fourteen Rs. To 15 Rs. And for Jangla breed was ten Rs. To 12 Rs.

There was additionally another category of Cavalry that was referred to as Rozinadar trooper for the temporary purpose, they were appointed at the subordinate position and had to perform military and non-military duties.

Army classification by Rajputs:

1. Harawal
2. Chandawal
3. Gol
4. Varangal
5. Tarangal

Harawal: Harawal is also called front army. Maharana Pratap handed over the presidency of his front army into the hand of Rajput warrior Krishna Das Chundawat and Hakim Sur. According to the tradition of Mewar, if a war occurs at any time, then only the king of chundawat dynasty operates the Harawal (Front Army). In the battle of Khanwa, king Silhaddi operates Harawal with 35000 soldiers.

Chandawal: Chandawal was the prashth Bhag of army. In the battle of haldighati, the chandawal army was rum by Bhil's Rajput sardar, king of Mirpur, Rana Punja and other warriors were Purohit Gopinath, Purihit Jaggannath, Prihar Kalyan, Bachhawat Mehta, Jaimal Mehta, Ratanchand Khemawat, Mahasahni Jaggannath, charan. This fact is according Veer Vinod.

Gol: This part used to be the central part of the army. In the Haldighati Battle, this part was conducted by Maharana Pratap himself.

Vaam Bhag: Vaam Bhag run by Jhala Beeda sultanot. He was accompanied by Jhala Mansingh. Akherijot and his younger brother Bhan Sonagara.

Dakshin Bhag: This part conducted by Bhamashah and his brother Tarachand in the battle of Haldighati.

All these parts had enough arms, soldiers, cavalry and elephant. In the battle of Haldighati, there was also a main part of Bhil's, who specializes in bow and arrow. In the battle, they were posted on the mountains so that when enemy forces entered the valley, they could be finished them and this task was given to the Bhils.

Animal Army: - The Animal army of Rajput were divided into three parts:

1. Horse Army
2. Elephant Army
3. Camel Army

Horse-Army: Horse army is called cavalry and we have discussed it earlier in this chapter.

Elephant-Army: Elephant used to a major part of the army. Elephants were a symbol of grandeur and permanence in the Indian army. The most important thing is that the teaching to elephant was very easy task. These were also easily available and their food could also be easily arranged through the forests. Elephants served for many purposes like; fighting, transport agents. Elephants were very faithful and sagacious. This animal had the advantage that it might reach precipitous mountains, climb hills wherever even the mules didn't reach. This animal served as pillar between the army unit and cavalry. Elephant once in rage

become tough to manage. Moreover, being a devoted animal once the master died within the battle field it fled in panic. Besides it provided tallest seat and its master become straightforward target for enemy.

The elephants were trained by Mahawat who were conjointly their caretaker. The race coaching was given to them fighting between the elephants was also organized. The elephants were fed with drawn butter, rice sugarcane etc.

According to our document, there have been completely different breeds of elephants like Mast, Kumandi, Amej, Dhanasuri, sahalan. Mast breed was the simplest breed.

Devi Singh Mandawa has discussed the subject of elephants in his book "*The Priest of freedom-Maharana Pratap*" at the page no-80 and 81. This discussion is related to the battle of Haldighati. According to him, there was an elephant Luna in Rana's army against when Faujdar Jamal Khan brought an elephant named Gajamukta of the Badshahi army. There was war in both elephants due to which many soldiers died after being crushed. After that elephant was injured, the relative of Maharana's relative brought Ram Prasad, the most powerful elephant in the army of Mewar. He started eliminating the royal troops. Kamal khan brought the elephant Gajraj in front. At the same time, Panju also extended the Ranamdar elephant to the Ram Prasad. The emperor's elephants began to move back in front of Ram Prasad that at the same time the Mahawat of Ramprasad got an arrow and he died aand they took Ramprasad.

This incident happened in the battle of Haldighati, which describes the fierce battle of elephants. As I have said earlier, in addition to fighting elephants used to do many other things, also used to carry goods around and break main door to capture the palaces.

Camel-Army: Camel army was common component in desert warfare as a result of its high level of ability. They provided a quality that was higher suited to work and survival in an arid

and dry atmosphere. Camels were typically used as transport. they might cowl long distances while not water and will be as quick as horse. They even have ability in contact masses. They provided an elevated and mobile platform for delivering cannon fire. within the Rajasthan and Gujrat, camels mounted troops still be used for patrolling and policing.

Although camel corps were very beneficial but they were not suitable for fighting the war. So, no facts have been revealed about their use in Haldigahti and Khanwa war.

ARMY IN BATTLE OF HALDIGAHTI AND KHANWA

The principles of managing the army were well understood by theorists of medieval period.

Barani has referred to some of these –

- Rank to be given on proper assessment of merit or efficiency, command to be commensurate with merit of efficiency, otherwise disorder and distress will follow. No command to be given to a man not suitable. A man of higher ability should not be entrusted with a lower job, to avoid disaffection. “when a man does not get the rewards of his merit and sees the unworthy in high office, it is certain that his loyalty will suffer and he will be always discontented.
- Keeping a larger and well-equipped army in reserve permanently (be sides the number required) to meet an unforeseen crisis or emergency. Anybody suggesting reduction of the army or expenditure thereon, even if he was brother and son, is to be regarded as an enemy. The organization of the army must be very firm.
- The army should never be left idle. It must be usefully “employed in its own profession”, engaged in collecting the revenue, guarding the frontiers, cutting forests, building forts and hunting. So that ambitious officers might not create disturbances.

Sukraniti, strength of the physique is to be promoted in the interest of hand-to-hand fight by means of tussles between peers, exercise. Parades and adequate food. The king should promote the strength of valour and prowess by means of hunting excursions against tigers and exercises among heroes and valorous people with arms and weapons. The strength of army is to be increased by good payments, that of arms and weapons by penances and regular exercise and that of intelligence by the companionship of people learned in shastras.

Armies have modified in History. The make-up of armies came to be revised as a result of social and political aspects of nation. New weapons determined the character of warfare and organization of armies. Armies have been built around foot troopers, or mounted warriors or men in machines- created from professionals or amateurs or mercenaries (for play or plunder) or of patriots.

Warriors in War of Khanwa: -

The number of people who fought on behalf of Maharana Sangram Singh (Rana Sanga) in war of Khanwa was not yet proved, historians still have difference on this. But according to some fact, the number of warriors fighting under the flag of Rana Sanga was around two lacs. Apart from this personal army of Maharana Sanga, many Kings, Maharaja, Princes etc. fought in Khanwa's war with him. The description of some Rajputs fighting with them is as follows: -

Table-5

Warriors of Khanwa

| Name of warrior | Number of soldiers with him |
|------------------------|------------------------------------|
| King Silhaddi | 35,000 |

| | |
|--------------------------------|-------------|
| Rawal Udaisingh | 10,000 |
| Hasan Khan mewati | 10,000 |
| Medaini Rai | 10,000 |
| Narbaj Haaj | 7,000 |
| Shatrudev | 6,000 |
| Bharmal | 4,000 |
| Veeramdev | 4,000 |
| Nrasingh Dev | 4,000 |
| Mahmud Lodi | 10,000 |
| Other Sardar | 4,000-7,000 |
| Raimal Rathor | 3,000 |
| Kalyanmal | 3,000 |
| Bhupat Rai | 6,000 |
| Manikrai Chauhan | 4,000 |
| Rai Chandrabhan Chauhan | 4,000 |
| Dalpat Rai | 4,000 |
| Kunku (Gangu) | 3,000 |
| Karam Singh | 3,000 |
| Dankusi | 3,000 |

Prithviraj of Amer, Rawat Bagh Singh of Devalia (Pratapgarh), Chandrabhan, Manik Chand Chauhan, Rai Dilip etc. also fought in the battle under the flag of Rana Sanga with a large army.

Rank of the Army in the battle of Khanwa

Rana Sanga fought the battle of Khanwa together with his personal army and 80,000 horses with seven Raja of the very best rank, 9 Raos, 104 Chieffains bearing the titles of Rawal and Rawat with five hundred war elephants.

Prince of Mewar and Amber (Jodhpur and Jaipur) did him homage and the Raos of Gwalior, Ajmer, Sikri, Raisen, Kalpi, Chanderi, Boondi, Gagroon, Rampura and Abu served him as tributaries or held of him in Chief.

Warriors in War of Haldighati

War of Haldighati fought between Maharana Pratap and Akbar's army. On behalf of Akbar, Raja Mansingh led the army in the Haldighati war.

There were many commanders and leader in both of the army of Rajput and Mughal.

Table -6

Commanders and Leaders

| Rajputs Warriors | Mughals Warriors |
|--------------------------------|-----------------------------------|
| Pratap Singh | Man Singh |
| Bhim Singh Dodia | Sayyed ahmad Khan Barha |
| Ramdas Rathor | Dayyid Hasim of Barha |
| Ramshah Tanwar | Jaggannath Kachhwa |
| Shalivahan Singh Tanwar | Ghias-ud-din Ali Asaf Khan |
| Hakim Khan Sur | Madho Singh Kachhwaha |

| | |
|--|---|
| Bhama Shah | Mulla Qazi Khan |
| Tarachand | Rao Lonkarn |
| Bida Jhala | Mihtar khan |
| Rana Punja | |
| 3000 cavalry, 400 bhils archers and unknown number of elephants | 10,000 men and unknown number of Elephants |

As I mentioned earlier, in the battle of Haldighati, Maharana Pratap's army was divided into five parts. Right wing, left wing, up and down. Maharana Pratap was in the midst of the army.

Right wing: - It was led by Ramshah Tanwar (King of Gwalior), and his three sons, accompanied by minister Bhama shah and his brother Tarachand and other 500 strong soldiers.

Left wing: - Bida jhala and his clansmen of Jhala including 400 warriors.

Up wing: - Hakim sur with Bhils soldiers

Down Wing: - Rana punja and other warriors

Middle: - Maharana Pratap with 1300 soldiers (With Traditional Bards and Priests and other civilians were also part of the formation and took part in the fighting)

Akbar's army was more than Pratap's army. The front line which led by Sayyid Hashim of barha 85 skirmishers. They were followed by Kachhwa Rajputs led by Jaggannath and central Asian Mughals led by Bakshi Ali Asaf Khan. After them, sizeable advance reserve led by Madho singh. Madho singh followed by Man Singh itself with the centre. There was additionally left and right. Mihtar Khan was leading the military within the Rear guard.

Left Wing: - commanded by Mulla Qazi khan of Badakhshan and Rao Lonkarn of sambhar and included the shailkzadas of Fatahpur Sikri; Kinsmen of Salim Chisti.

Right Wing: - commanded by Sayyids of Barha

Rear Guard: - led by Mihtar Khan.

IMPORTANCE OF TRAINING

Every task in life requires both training and education. Both of these are very important to live a meaningful life. Education may be a method of systematic learning that develops a way of judgment and coaching implies the act of transmission a special ability or behaviour of someone.

In medieval India, Rajput started teaching their children from puberty. They were made aware of the knowledge of both shashtra and weapons. The shashtra helped them to become a better king or prince and weapons helped them to become a better warrior. The Rajput children were trained from their early childhood to chop off the animal's head with a sword in a single attempt. Their main exercises and popular games included horse riding, Javelin-throw, archery, wrestling, hunting, clubbing etc. the Rajput girls were given training insaddle-less horse riding.

For the mental and physical development of the young ones, they were given many types of exercise and knowledge of shashtra so that their bodies and mind would be strong and agile and they would also be proficient in running arms.

The armaments given to the Rajputs were not limited in any area, but they were taught to operate each weapon. Apart from this, they were also given knowledge of horse riding, hunting. They were also taught to ride elephant and to control it.

“Satmari” game was more popular in the games of that time. In this game, the elephant was left in Chaugan. There were walls around chaugan. There was a hole in the walls in which the rider could get out but the elephant could not. Horsemen used to kill elephant with long hunters. In this game, horsemen were taught the art of how to avoid an excited elephant. Similarly, there was a game of “Malati”. A rider used to take Ballam (spear) in the middle. There were four-five riders carrying bamboo ballams around it. In this game, instead of a spear, there was a ball of different colours. The all-round riders tried to hit the middle rider with balls and he used to defend himself from them. Through this game, the warriors are taught how to protect himself from all sides. Similarly, all kinds of fighting skills were taught like horse jumping, river crossing, mountain climbing etc.

Similarly, horse hunting was also a tradition in Rajputs, sitting on a horse, it was taught to hunt lion, pigs, with ballam so that horse and horse-rider would not get distracted in the battlefield. Pigs were also hunted with daggers and swords while sitting on a horse.

At that time hunting was also considered a part of war. Arms used to be practiced in this way during the peace time by hunting. Also, there was physical effort, hunting wild predatory creatures gave rise to courage, strength and skill. In Indian texts, hunting is considered as an addiction but hunting regularly and moderately is good. With this, arms are practiced and mastery is gained in horse riding and exercise is also done. It communicates fearlessness and trust. Apart from ballam, they used to hunt with sword, dagger and arrows. Small animals and birds were hunted with arrows. This led to proficiency in archery. At that time, wrestling was also done with mallah in the morning, which used to communicate strength and elation in the body.

In the same way, sit-ups, mogri rotating exercise were done which used to be a touch of hands. They gained proficiency in wielding swords, fighting with swords, using swords and

ballam with horse etc. Pratap Singh and his brother used to play chaugan, which was in current polo game.

TRAINING IN WEAPONS

Rajputs like foot fighting with a sword khanda and a spear as the main weapon. That didn't exclude the use of different varieties of weapons (including firearms with time) and equestrian fight, it's solely concerning traditions and preferences.

The techniques with a spear are a quite easy associate degree instinctively intelligible set of exercises that's nonhereditary in exercises with a pole as a result of the premise for them. Despite the prevailing variety of thrusts there are chopping techniques. This might be explained by 2 factors: the utilization of chopping blows spear blade (wide and sturdy spearheads allowed to undertake associate degree do so) and used combined weapon by mercenary Rajputs inside the Mughal Army inside the seventeenth century: the weapon had a worker, a spearhead and a spear butt, but the spearhead was integrated with associate degree outsized club.

But the foremost common styles of spears corresponded with the idiom. The short spear for a foot battle differed in barely a wider purpose and a rather thick, usually bamboo staff. The name of this kind of spear (that is utilized inside the system in question) is "ballam" – it's just like the spears of Rajputs in historical descriptions.

Existence of techniques with a spear, to be precise, the simplicity and conjointly the natural character of its parts lets US assume that it desires to be very necessary to point out the beginner troopers' basic field of battle skills throughout this region of Rajasthan, what was still associate degree doubt} useful in associate passing military community "akhara" and in an passing village Rajpur college at intervals the nineteenth century and earlier.

The basic teaching methods of weapon application supported the skills of handling a stick is that the overall principle for all combat systems of land and land. The system in question isn't degree exception, where the skills of applying a stick unit of measurement the concept for the whole extra teaching. At a similar time not the utilization of the stick itself as a weapon is of a lot of price, however that range of movements that square measure necessary within the method of teaching the handling this object. it should appear strange however the movement basis of this technique sounds like an accentuated in how human step or a stride which has the overall for all north-western systems basics of moving "pentra". during this system the tactic, exploitation of this principle, ends up in certain movement skills with no charm to any sacred meanings or miraculous characteristics. Once the flexibility is learned the "pentra" itself continues existing only as a result of the initial movement once activity customary forms.

After deed the foremost two skills, namely, the movement skills and well-developed wrists among the tactic of teaching with a stick, the pupil has no further questions on the strange kind of the handle of the classical Indian sabre observed as "tulwar".

Excluding the prospect of holding the handle not really tight and let the weapon flip spherical at intervals the hand, the handle of the "tulwar" makes it potential to use different principles of applying long blade cold steel. These principles are merely derived at intervals the instance of weapon handling techniques with the cross hold of the handle, that selection and choice area unit extraordinary in India. At an analogous time, it's value action that an analogous principles area unit applied once handling blade arms with a regular longitudinal type of the handle.

The use of a defend, a parrying weapon or a second arm among the hand doesn't modification the idea and is facultative. At an analogous time, it's necessary to note that twin

wielding swords warriors were really valuable in Asian country. The Hindu in addition thought-about someone, who might learn to handle Associate in Nursing arm beside his right and left hands equally well, had further blessings in a {very} very fight. the flexibility of handling 2 swords at a time wasn't merely a theoretical or exceptionally coaching job approach.

Short blade weapons embody Indian daggers with a typical longitudinal variety of the handle (khanjar, khanjarli, jambiya, chilenum, jamadhar katari, bichwa) and a dagger with a cross handle "katar". The special feature of the daggers with a typical construction of the handle is that it's necessary to hold them with a reverse grip. The ways in which to use this weapon embody freelance offensive techniques likewise as secondary defensive or parrying for the used. The second cluster, conventionally mentioned short blade weapons, includes weapons in the main used for parrying (counter) and meant for the used (madu, maru, defend with spikes and blades, sainti of all types).

The system doesn't study severally such style of Rajput's weapons as maces, axes and pointed axes. But, as noted on high of, the properly trained movement ability permits to manoeuvre without thinking freely, offensive and defensive with any weapon likewise like none within the least. On the observe with none weapons within the least, it's enough to say, that the designed ability of the trained articulatio radiocarpea, that holds a weapon at the time of the attack or defence, let use the articulatio radiocarpea itself with efficiency as associate freelance weapon. And also, the flexibility of movement and stepping will change to feature the free leg to the offensive or defensive actions.

TRAINING OF ANIMALS

A large part of army fighting in the war was the infantry, who used to fight the enemy army with weapons in their hands. After them comes the cavalry, where soldiers sit on horses and

fight. After the cavalry, elephant army play an important role. Therefore, both elephants and horses were prepared by taring for war.

Horse: With their curved ears, horses were playing main role in our Indian history. They were trained to fight enemies on sword-wielding elephants and bred to resist the disabling desert heat, their efforts on the piece of land were inextricably coupled to the increase and fall or their Hindustani masters.

The Rajputs well exploited the enemy's liability to urge advance battle by production false trunks for his or her horses, making them appear to be baby elephants that the adult animals instinctively wouldn't attack.



Udaipur museum

Arguably the most famous conflict, which is depicted in a painting displayed at the city palace in Rajasthani city of Udaipur, was the 1576 battle of Haldighati.



Legendary horse chetak is attributable with saving the lifetime of his master, Maharana Pratap, the last Rajput still standing against Mughal. Chetak is shown within the customary false trunk together with his hooves on the lead enemy elephant, permitting Pratap to throw his lance at Man Singh. However, the overall ducked, his driver was killed instead and also the general's elephant swung around in panic, dynamical off one in every of chetak's leg with a weapon connected to its trunk for combat. This false trunk of horse was giving the Rajput's a plus of offensive first. The horse would rise on their hind legs, inserting their front legs on the elephant's head. this might supply the rider a chance to attack the driving force with a spear or associate arm. A fight set up of action which will end up paying high dividends.

Such was the importance of the breed to the clans survived that it absolutely was unremarkably aforesaid that a Hindustani may ne'er be separated from his horse. These Marwari horses were actually terribly important to the history of Rajasthan. A Rajput's horse and arm were substantial components of his life and as expensive to him as his family.

Many different varieties and sizes of horse were utilized in war, reckoning on the form of warfare. the kind used varied with whether or not the horse was being ridden or driven, and whether or not they were getting used for intelligence activity, cavalry charges, riding, communication or provide.

Horses were trained to be ridden as light-weight or significant cavalry, or carry the armoured knight, abundant coaching was needed to beat the horse's natural instinct to escape from noise, the smell of blood and thus the confusion of combat. They collectively learned to simply settle for and sudden or uncommon movement of humans whereas using a weapon or avoiding one. Horses utilised in shut combat may square measure taught, or a minimum of allowable to kick, strike and even bite, so turning into weapons themselves for the troopers they carried.

Elephant: The largest land mammals on earth, created their mark in ancient warfare as creature capable of devastating packed formations of enemy troops. Elephants might trample enemy troopers, gore them with their tusks and even throw them with their trunks. They were typically armoured against enemy weapons or had their tusks tipped with iron spikes. Some even carried a raised fighting platform on their backs for archers and javelin throwers. The war elephant's main use was to charge the enemy, breaking their ranks and ingraining terror.

The elephants maintained by the rulers with such a care and a focus in massive numbers had their own utility. Certain functions in field might solely be performed by elephantry. Whereas on the one hand, horse was used for its fast motion; on the opposite, elephant was used for the forward command and to say the proceedings in war. Prithviraj raso refers that when Shihabuddin Ghorī had rode Associate in Nursing elephant going his horse simply to encourage and command his troopers, whereas in another scenario, realising defeat, he used horse in situ of elephant simply to fly far from the war field.

Elephants were additionally created intoxicated so as to excite their anger and exceed strength. The elephants are regarded of such a mite and capability that solely one elephant is alleged to own fight with thousands, being stable, even once bearing with thousands of blows and hits. The number of elephants accustomed die within the battle had been definitely a lot of but the horses and foot troopers. every elephant mounted by a knowledgeable driver is alleged to be in a position of destroying a cavalry force of 600.

Rajput rulers usually unbroken the phalanxes of elephants on the advance guard or frontline of their armies. The king commanded the centre riding the rear of an elephant, so he may be able to give a decent leadership and oversight to his own troops.

An elephant trainer, rider or keeper is termed a driver were to blame for capturing and handling elephants. To accomplish this, they utilize metal chains and a specialised hook

known as an ankusa or elephant goad. The elephant would have learned the way to rise its legs to assist a rider hop on. Then the elephants were instructed to run and manoeuvre around obstacles and move in formation. These elephants would be acceptable find out how to consistently trample and charge enemies.

Chapter-6

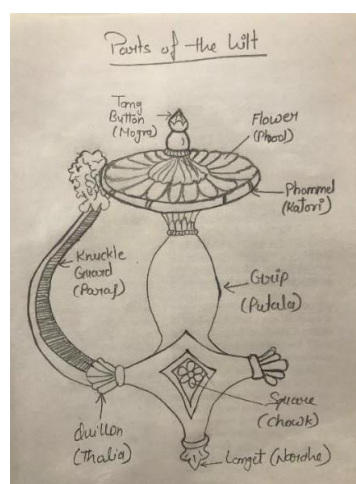
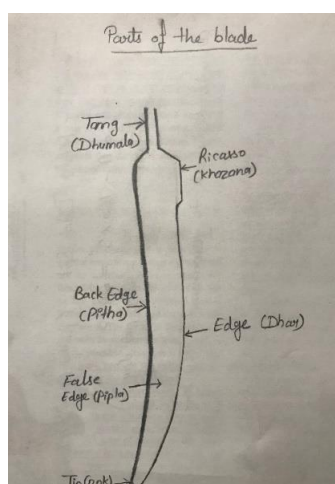
DISCUSSION, ANALYSIS AND CONCLUSION

For a warrior, his weapons are like his arms, which are always there to protect him. A warrior respects his weapons very much and hence maintains them well. There have been many warriors in medieval India and they have made many changes in their weapons, as a result of which these weapons lasted for long time.

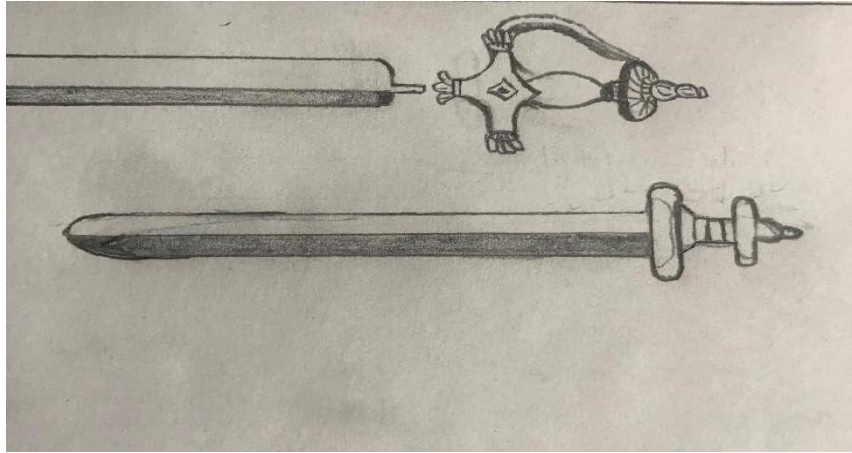
Today, the weapons we are talking about, writing, reading and realizing about, at one time they have seen the struggle and sacrifice of life and death. Weapons changed from time to time according to the need of the soldiers. Initially, weapons were used for hunting, but as the greed to expend their kingdom increased, as such weapons and soldiers became necessary. Changes in weapons made the weapons even more deadly. In the medieval period, Khanda was given a new shape by Prithvi Raj Chauhan, due to which it went on even to modern time.

We came to know about the different sizes of blades used to weapons and we have also discussed about the different parts which are added to make a weapon. As a conclusion from which I want to say that to make a sword, dagger and spear, we have to add many parts of it.

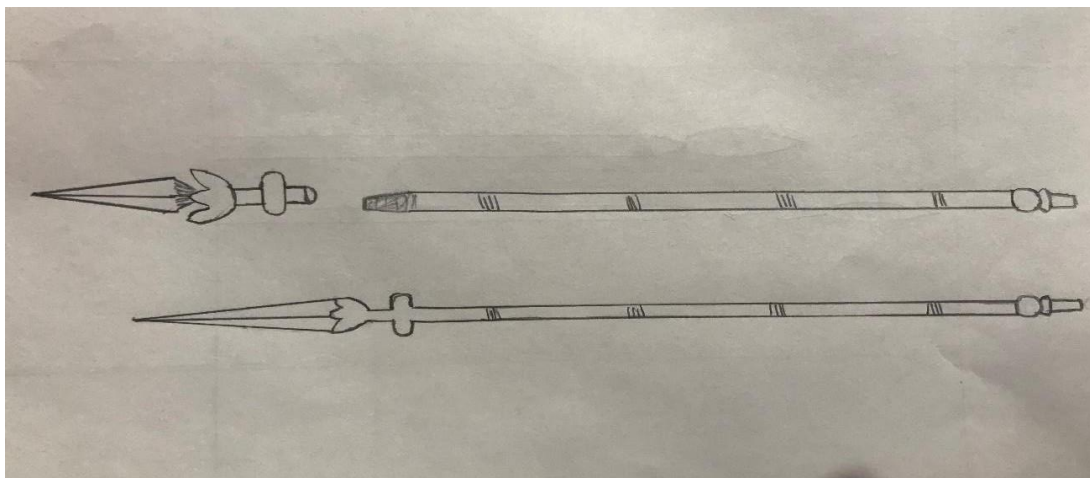
We can understand it through the picture –



According to these pictures, we have been able to know about the blade and hilt. When we combine these two parts with each other, then an entire khanda or sword is formed. Similarly, the dagger and the spear also have two or more separate parts, which are folded into a full-fledged weapon. See pictures of the sword –



Hilt is fitted on the upper part of the blade, making swords complete. Similarly, dagger, spear and other weapons are also made by joining separate parts. The construction of these parts varies. Later, a weapon is made by adding them.



In the hilt, a hole is sometimes made to pass through a safety loop of leather or silk. The sword knot is wrapped round the wrist so that the sword cannot slip out, even if one loses grip. Sometimes the spear was fitted with a crossbar or curved lugs behind the spear head and on each side of the socket. These fixed lugs were meant to prevent the weapon from sinking too far into the man or animal attacked, as it would then be difficult to pull back and retrieve.

A sword popular with the Rajput was one with a hilt big enough to be used with both hands. These hilts, necessarily, were long and had short quillons. The blades of these weapons were very broad, heavy and single-edged. They were wielded more like battle axes and could deliver a shattering blow.

At the time of the Rajputs, Gadi Lohar nomads prepared Rana's Weapons. They were mastered in their work. One of them specialist in manipulates the mechanical bellows, the other was hammering the iron, third was forman and fourth gave iron the shape of a weapon.

After the process of manufacturing weapons, we divide the weapons into many parts. According to Vedas, the weapons are divided into two parts. One which is run by hands and the other which needs some power and equipment to operate. But today, we divide weapons in two parts.

Short-range weapons: - Sword, Dagger, Knife, Spear, Maces, Battle-axes etc. and

Long- range weapons: - Bow and arrow, Spear and Cannon

Artillery used in the war of Khanwa gave warriors and weapons a new direction. Rajputs suffered a huge defeat due to artillery in Khanwa but still they did not give up. They began to pay attention to this and continued to fight the enemies with their weapons.

Maharana Pratap's weapons were prepared by a nomadic community of blacksmiths which moves from one place to another on bullock carts. This community called Gadi Lohar and

they were adept in their work. These weapons prepared by Gadi lohar were very deadly and evidence of this recorded in history.

Under the Mughal, weapon was developed and the design reached its peak during the reign of Jahangir. Not only was the Mughal sword a superb cutting instrument, but also one with great aesthetic appeal. This combination of functional efficiency and display value added greatly to the mystique of the sword.

Practicality and aesthetic were in balance, so that the sword had the flawless perfection of a work of art. In later times, during Aurangzeb's reign, the desire for display overcome the importance of function and the sword became a mere ornament, a personal piece of jewellery.

The importance of soldiers was realized in ancient time in our history. Therefore, it was necessary that the army should be maintained properly, they should be given good and deadly weapons, they should be taught to drive weapons. Moreover, the numerical strength and proper stability of the army depend on four essentials: Exclusive and whole-hearted attention of the ruler, Bold expenditure of enormous treasures, Good leadership, implying 'affectionate and kind' officers, Excellence of the central minister of war. Looks after 'the general and detailed affairs' of the army. He should be unsurpassed in certain qualities including 'correctness of faith'. He should be trustworthy, efficient, honest, affectionate, truthful, of noble birth, dignified and true of his promises.

The strength of the army is to be increased by good payments, that of arms and weapons by penances and regular exercise and that of intelligence by the companionship of people learned in Shashtras. The king should promote the strength of valour and power by hunting excursions against tigers and exercise among heroes and valorous people with arms and weapons. The role of armies came to be revised as a result of social and political aspect of nations.

All the soldiers of the army were divided into different parts, those we know by the name of Infantry and Cavalry. Apart from this, some soldiers in the army are also called horse riders and elephant riders because these soldiers used to fight on elephant and horse. The army was divided into five parts among the Rajputs. Harawal, Chandawal, Varangal, Tarangal and Gol. The rajputs used to divide their army into these five parts. The soldiers of all these five parts had the right number of weapons and other necessities.

In order to make proper use of all the soldiers present in the army, it is necessary that we take care of the need of the soldiers. Giving posts to the soldiers according to their ability and giving them a good salary. Their leader must be good and must understand their soldiers well. Apart from this, soldiers should provide good weapons and their king or leader should practice those weapons with them. So that soldiers can also make themselves strong. They should be given opportunities to move forward so that there is no place for any discrimination.

Strategy dominates because it covers designing of war, and is that the art of conducting war – of sticking and leading and mobilising and coordinating the whole resources of a state and also the campaigns towards attaining the political object of war. It deals with strategies used to deceive the enemy, plans for a campaign and all broad aspects of waging war. It pre-empted almost the whole field of generalship, short of the battlefield itself. Tactics is the art of executing plan, of fighting, of making army dispositions.

In the Vedas, it has been told about the strategies. Like in Mahabharata, it has been told about the Mandal Vyuh, Chakravayuh, Ardh-Chandra Vyuh etc. Similarly, Kautilya has also said in Arthashastra that “an arrow discharged by an archer may kill one person or may not kill but the intellect operated by a wise man could kill even children in the womb” (Arthashastra, Kangle, II, P-458, V.51.).

In the battle of Khanwa, Rana Sanga, fighting in an exceedingly ancient means, attacked the Mughal army's flanks. He was prevented from breaking through by reinforcements sent by Babur. The carts and musket men were ordered to advance, pressing on the Rajputs and their allies. The battle that lasted for no more than ten hours, was bitterly oppose and have become associate degree passing brutal affair. At an important moment of battle, the defection of Silhadi and his contingent caused a split within the Rajput forces. Rana Sanga whereas attempting to make his front was wounded and fell unconscious from his horse. The Hindu army thought their leader was dead that resulted in disorder, so permitting the Mughals to win the day. Despite golf stroke up a gallant fight, amphibian genus Sanga and his allies suffered defeat. together with his numerically immense army as compared thereto of Babur, Sanga perceived that he would win the battle against Babur. However, Babur's techniques and also the economical use of artillery and cannons was no match for amphibian genus Sanga. The Rajputs had no answer to the wheeling techniques of the Mughal cavalry. Babur's artillery had won the day for him; it had finally established the Mughal rule over Bharat.

In the battle of Haldighati, Maharana Pratap divided his army into 5 parts; Harawal, Chandawal, Varangal, Tarangal and Gol. except this Maharana Pratap adopted the great ape war methodology, beneath that he defeated an oversized army of Akbar. Pratap used the Haldighati's mountainous region as a powerful and secure place. mistreatment the great ape war methodology, Maharana Pratap suddenly attacked the enemy army and disappeared now once the invasion. The great ape war methodology has got to disappear by offensive the enemy. This methodology was adopted by different warriors even once Maharana Pratap.

Rajput started teaching their youngsters from early age. They were created responsive to the data of each shashtra and weapons. The shashtra helped them to become a higher king or aristocrat and weapons helped them to become a higher somebody. There main exercises and

fashionable games enclosed horse riding, Javelin-throw, archery, wrestling, hunting, symptom etc. the Rajpoot women got coaching in saddle-less horse riding.

Many games were contended impart coaching in Rajputs. A game referred to as Satmari was contend for coaching associated with elephants. Another game was Malati, within which the rider wants to substitute the centre with Ballam and plenty of balls were thrown on him. Rider want to defend himself. the explanation for taking part in this game is that it tutored the rider to avoid attacks returning from all sides. Warriors used this kind of coaching to stay themselves invariably prepared for war. except this, horse riding and searching were conjointly concerned in such coaching. Whenever warriors had any likelihood to peace within the interior of war, they unbroken themselves sturdy with such activities.

Apart from this, training to wield weapons was given to the soldiers. The essential coaching in strategies of weapon application supported the abilities of handling a stick is that the general principle for all combat systems. Throughout the coaching, stick was utilized in place of the weapon. There was no risk of any loss and coaching may even be completed. Weapons area unit used for Training or any stick doesn't matter. The importance is that what percentage movements area unit done ceaselessly victimisation stick as a result of the quantity of movements area unit necessary within the method of teaching the handling object.

There were a system Pentra. During this pedagogy, results in bound movement talent with no charm to any sacred which means or miraculous characteristics. Once we learn to manoeuvre endlessly in these ways in which, the coaching is started with the arm. This coaching is given so the articulatio radiocarpea of the hand is reinforced so the blow coming back from all sides are often stopped before the arm is employed. The Rajput additionally thought-about that someone, who may learn to handle an arm together with his right and left hands equally well,

had additional blessings in a very fight. The talent of handling 2 swords at a time wasn't simply a theoretical or exceptionally coaching approach.

Even after good training, good weapons and good ability to fight, the Rajput Warriors had to face defeat in some war. Such as the battle of Khanwa, in which Rana Sanga had to be defeated by Babur but there were many reasons behind this defeat.

- Lack of knowledge about Artillery
- Fighting with old Tradition
- Lack of good Strategy
- The main Leader was injured. If we pay attention to the history, it can be seen that whenever anything happens to the main Leader of an army, it directly affects his entire army. This defeat was certain after Rana Sanga was injured.
- Needed a strong offensive-defensive formation, which had been prepared by Babur.

Overall, it can be said that Rajputs were brave warriors. Their weapons were good. Specialized in fighting and wielding weapons. But due to some reasons, they also had to face defeat, but this did not decrease their ability, neither did there be any decrease in their will-power. Hence, they always fought for their people.

Recommendation for Further Work

As I have said, the weapons used by the Rajputs in Medieval time had been going on for a long time. The technical changes made from time to time in old weapons made them better for the future. Similarly, when the weapons of medieval India were made better. It continued till modern times. As I have said, the Rajput Khanda is a weapon lasting till modern times and many evidences of it also exist.

In this study, I have also described the weapons of ancient time which are mentioned in our Vedas. If noted, the weapons we used today are very similar to the weapons mentioned in our Vedas. In future this thing can be proved more through new studies. Our current weapons which use a lot of gunpowder and which give a horrific result after use. Come such weapons are described in our Vedas, whose results were also very deadly and which are very similar to the weapons of present.

Based on the experience gained during this study, I can say that people know very little about weapons. Studies like swordplay are still conducted in the south of India. This is a kind of Training in which new youth are taught how to wield swords, how to protect themselves and how to fight. But no one knows this art today. On the basis of my experience, I can say that today this art is limited to only one corner of the country. We should take this art forward and tell people about it. This art has been going on since ancient times and through this, soldiers were prepared and soldiers sent to war by giving some similar teaching. I think this topic is very important for future study. This topic needs to be further disseminated, so that people can get to know about it and promote this art.

In this study, I have described some important points. How did the Rajput prepare weapons? How a weapon was shaped? Which technique was used? Which metal was used? By which people these weapons were prepared? Besides, what role did the Rajput army play in war? What kind of armies were there? How were the soldiers maintained? What were their strategies? I have paid attention to many such points.

Apart from the medieval Rajput, there have been many warriors in Ancient and modern time, whose subject should be discussed. Apart from this, what was the relationship between ancient, modern and medieval weapons is also a matter of discussion.

Annexure

Questionnaire for Museum Visitors

[The Questionnaire is created by Sangeeta Tomar, Research Scholar, for Ph.D. thesis on
**IDENTIFICATION OF THE VALUE OF WEAPONRY WITH THE RAJPUT
RULERS [CASE STUDY OF BATTLE OF KHANWA AND BATTLE OF
HALDIGHATI]**

1. Name: _____

2. Age: _____

3. Gender: _____

4. Address: _____

5. Organization: _____

6. Designation: _____

7. Why did you visit this Museum?

To know about the Weapons and History

For Project

To Enjoyment

8. What do you know about the Weapons?

9. Do you think that there was a change in weapons over time? How much do you know that?

10. Are you aware of the Strategies of Rajputs, their weapons and their soldiers?

Yes –

No –

11. Do you think that the weapons of Rajputs were much better and with time they made them better? What would you like to say about this?

12. Do you think people are aware of weapons and strategies?

13. What should we do to make people aware about this?

Exhibitions

Workshops

Lectures

14. Please share your view on themes which need to be discussed and exhibited through museums?

15. Do you know about any such art that teaches to understand how to use weapons?

Thanks for your Valuable Time!

Questionnaire for Museum Professionals

[The Questionnaire is created by Sangeeta Tomar, Research Scholar, for Ph.D. thesis on
**IDENTIFICATION OF THE VALUE OF WEAPONRY WITH THE RAJPUT
RULERS [CASE STUDY OF BATTLE OF KHANWA AND BATTLE OF
HALDIGHATI]**

1. **Name:**
2. **Name of the Organization you are associated with:**
3. **Designation:**
4. **What do you know about the war of Khanwa? Did Babur really win the battle of Khanwa?**

5. **Where are the weapons of Rana Sanga placed/kept in Present time? What was his war strategy in war of Khanwa?**

6. Did Rana Sanga really lose the battle oh Khanwa? What was the main reason behind his loss of the war?

7. Like Maharana Pratap, did Rana Sanga get manufactured his weapons by a particular caste?

Yes-

No-

8. Did Rana Sanga use any technique to get manufacture or develop his weapons? What was that?

9. Were the Rajput's Weapons Weak?

Yes-

No-

State your answer-

10. How did the Rajput's prepare their weapons? What Metal did they use to make weapons?

11. Do you see anything special in their weapons?

12. Are there any special techniques they used to prepare in their weapons?

Yes-

No-

13. What do you know about the Gorilla war method? Did Maharana Pratap use any method other than this method in the battle of Haldighati?

14. Which metal was used to make weapons during the reign of both Rana Sanga and Maharana Pratap?

**15. How did the use of gunpowder in the war by Babur affect the Rajput army?
After the use of gunpowder by Babur did the Rajputs change their method of fighting the war?**

16. What was the contribution of Gadi Lohar in making the weapons of Maharana Pratap and with what technique did they manufacture weapons?

17. Did Rajput women also have any kind of contribution in the war?

Yes-

No-

18. What were the principles for making/preparing any war strategy?

19. How were soldiers trained? On what basis were soldiers recruited into army?

Rajputs preferred foot fighting, was there any special training for it? from what age did this training begin?

20. What kind of activity can be organized to inform people about the weapons kept in museum?

21. Apart from the exhibitions, how can we make people aware of these weapons and the facts related to them?

22. Do people support the exhibitions you have done?

Yes-

No-

23. What kind of people are more involved in such exhibitions?

Students

Scholars

Historians

Common Public

Thanks for your Valuable time!

**IDENTIFICATION OF THE VALUE OF WEAPONRY WITH THE
RAJPUT RULERS :**
A CASE STUDY OF BATTLE OF KHANWA AND BATTLE OF HALDIGHATI
THESIS
SUBMITTED IN FULFILMENT OF THE REQUIREMENT FOR THE
AWARD OF THE DEGREE OF
DOCTOR OF PHILOSOPHY

IN

HISTORY

By

SANGEETA TOMAR

Enrollment No: A51884216001 (GGN/2016/NS/1001)

UNDER THE GUIDANCE OF

PROF. (DR.) KIRAN DEVENDRA

Department of History

Amity school of liberal arts

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Amity University, Gurugram, Haryana

Manesar-122413

2023

Chapter-6

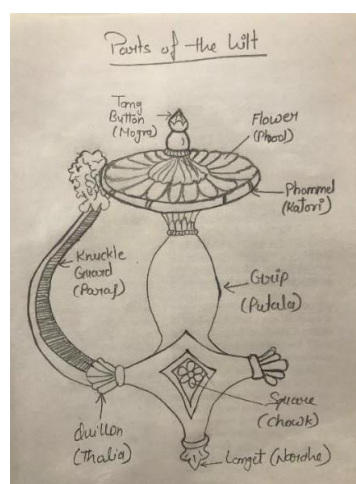
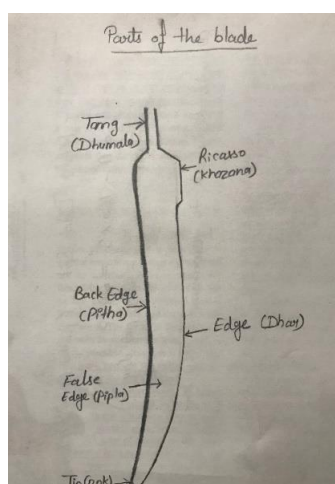
DISCUSSION, ANALYSIS AND CONCLUSION

For a warrior, his weapons are like his arms, which are always there to protect him. A warrior respects his weapons very much and hence maintains them well. There have been many warriors in medieval India and they have made many changes in their weapons, as a result of which these weapons lasted for long time.

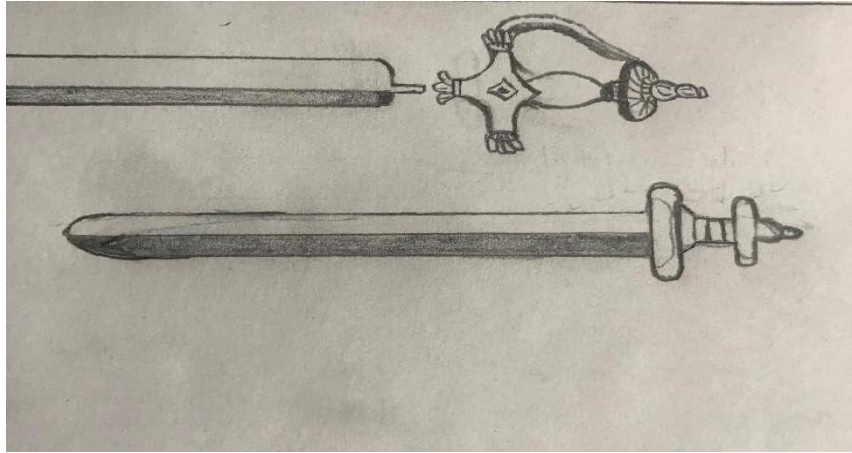
Today, the weapons we are talking about, writing, reading and realizing about, at one time they have seen the struggle and sacrifice of life and death. Weapons changed from time to time according to the need of the soldiers. Initially, weapons were used for hunting, but as the greed to expend their kingdom increased, as such weapons and soldiers became necessary. Changes in weapons made the weapons even more deadly. In the medieval period, Khanda was given a new shape by Prithvi Raj Chauhan, due to which it went on even to modern time.

We came to know about the different sizes of blades used to weapons and we have also discussed about the different parts which are added to make a weapon. As a conclusion from which I want to say that to make a sword, dagger and spear, we have to add many parts of it.

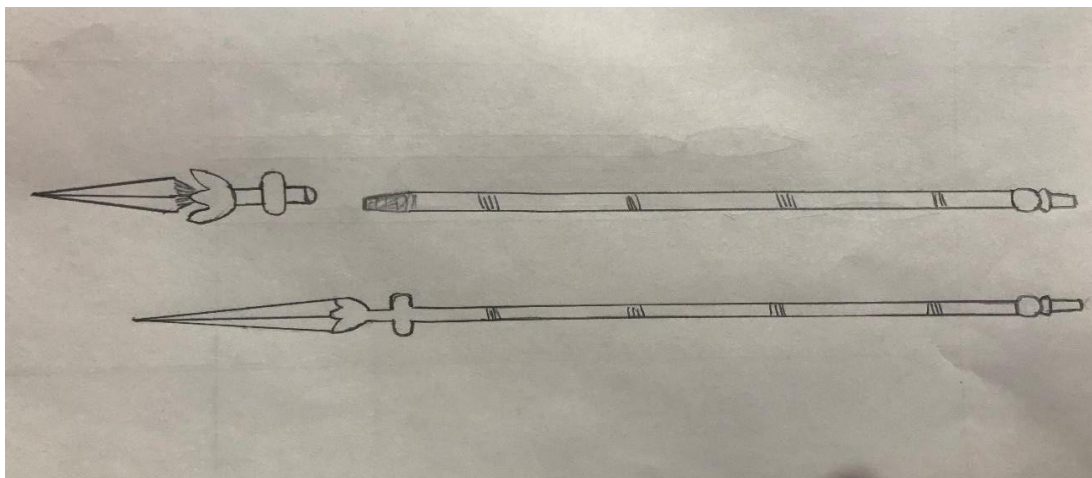
We can understand it through the picture –



According to these pictures, we have been able to know about the blade and hilt. When we combine these two parts with each other, then an entire khanda or sword is formed. Similarly, the dagger and the spear also have two or more separate parts, which are folded into a full-fledged weapon. See pictures of the sword –



Hilt is fitted on the upper part of the blade, making swords complete. Similarly, dagger, spear and other weapons are also made by joining separate parts. The construction of these parts varies. Later, a weapon is made by adding them.



In the hilt, a hole is sometimes made to pass through a safety loop of leather or silk. The sword knot is wrapped round the wrist so that the sword cannot slip out, even if one loses grip. Sometimes the spear was fitted with a crossbar or curved lugs behind the spear head and on each side of the socket. These fixed lugs were meant to prevent the weapon from sinking too far into the man or animal attacked, as it would then be difficult to pull back and retrieve.

A sword popular with the Rajput was one with a hilt big enough to be used with both hands. These hilts, necessarily, were long and had short quillons. The blades of these weapons were very broad, heavy and single-edged. They were wielded more like battle axes and could deliver a shattering blow.

At the time of the Rajputs, Gadi Lohar nomads prepared Rana's Weapons. They were mastered in their work. One of them specialist in manipulates the mechanical bellows, the other was hammering the iron, third was forman and fourth gave iron the shape of a weapon.

After the process of manufacturing weapons, we divide the weapons into many parts. According to Vedas, the weapons are divided into two parts. One which is run by hands and the other which needs some power and equipment to operate. But today, we divide weapons in two parts.

Short-range weapons: - Sword, Dagger, Knife, Spear, Maces, Battle-axes etc. and

Long- range weapons: - Bow and arrow, Spear and Cannon

Artillery used in the war of Khanwa gave warriors and weapons a new direction. Rajputs suffered a huge defeat due to artillery in Khanwa but still they did not give up. They began to pay attention to this and continued to fight the enemies with their weapons.

Maharana Pratap's weapons were prepared by a nomadic community of blacksmiths which moves from one place to another on bullock carts. This community called Gadi Lohar and

they were adept in their work. These weapons prepared by Gadi lohar were very deadly and evidence of this recorded in history.

Under the Mughal, weapon was developed and the design reached its peak during the reign of Jahangir. Not only was the Mughal sword a superb cutting instrument, but also one with great aesthetic appeal. This combination of functional efficiency and display value added greatly to the mystique of the sword.

Practicality and aesthetic were in balance, so that the sword had the flawless perfection of a work of art. In later times, during Aurangzeb's reign, the desire for display overcome the importance of function and the sword became a mere ornament, a personal piece of jewellery.

The importance of soldiers was realized in ancient time in our history. Therefore, it was necessary that the army should be maintained properly, they should be given good and deadly weapons, they should be taught to drive weapons. Moreover, the numerical strength and proper stability of the army depend on four essentials: Exclusive and whole-hearted attention of the ruler, Bold expenditure of enormous treasures, Good leadership, implying 'affectionate and kind' officers, Excellence of the central minister of war. Looks after 'the general and detailed affairs' of the army. He should be unsurpassed in certain qualities including 'correctness of faith'. He should be trustworthy, efficient, honest, affectionate, truthful, of noble birth, dignified and true of his promises.

The strength of the army is to be increased by good payments, that of arms and weapons by penances and regular exercise and that of intelligence by the companionship of people learned in Shashtras. The king should promote the strength of valour and power by hunting excursions against tigers and exercise among heroes and valorous people with arms and weapons. The role of armies came to be revised as a result of social and political aspect of nations.

All the soldiers of the army were divided into different parts, those we know by the name of Infantry and Cavalry. Apart from this, some soldiers in the army are also called horse riders and elephant riders because these soldiers used to fight on elephant and horse. The army was divided into five parts among the Rajputs. Harawal, Chandawal, Varangal, Tarangal and Gol. The rajputs used to divide their army into these five parts. The soldiers of all these five parts had the right number of weapons and other necessities.

In order to make proper use of all the soldiers present in the army, it is necessary that we take care of the need of the soldiers. Giving posts to the soldiers according to their ability and giving them a good salary. Their leader must be good and must understand their soldiers well. Apart from this, soldiers should provide good weapons and their king or leader should practice those weapons with them. So that soldiers can also make themselves strong. They should be given opportunities to move forward so that there is no place for any discrimination.

Strategy dominates because it covers designing of war, and is that the art of conducting war – of sticking and leading and mobilising and coordinating the whole resources of a state and also the campaigns towards attaining the political object of war. It deals with strategies used to deceive the enemy, plans for a campaign and all broad aspects of waging war. It pre-empted almost the whole field of generalship, short of the battlefield itself. Tactics is the art of executing plan, of fighting, of making army dispositions.

In the Vedas, it has been told about the strategies. Like in Mahabharata, it has been told about the Mandal Vyuh, Chakravayuh, Ardh-Chandra Vyuh etc. Similarly, Kautilya has also said in Arthashastra that “an arrow discharged by an archer may kill one person or may not kill but the intellect operated by a wise man could kill even children in the womb” (Arthashastra, Kangle, II, P-458, V.51.).

In the battle of Khanwa, Rana Sanga, fighting in an exceedingly ancient means, attacked the Mughal army's flanks. He was prevented from breaking through by reinforcements sent by Babur. The carts and musket men were ordered to advance, pressing on the Rajputs and their allies. The battle that lasted for no more than ten hours, was bitterly oppose and have become associate degree passing brutal affair. At an important moment of battle, the defection of Silhadi and his contingent caused a split within the Rajput forces. Rana Sanga whereas attempting to make his front was wounded and fell unconscious from his horse. The Hindu army thought their leader was dead that resulted in disorder, so permitting the Mughals to win the day. Despite golf stroke up a gallant fight, amphibian genus Sanga and his allies suffered defeat. together with his numerically immense army as compared thereto of Babur, Sanga perceived that he would win the battle against Babur. However, Babur's techniques and also the economical use of artillery and cannons was no match for amphibian genus Sanga. The Rajputs had no answer to the wheeling techniques of the Mughal cavalry. Babur's artillery had won the day for him; it had finally established the Mughal rule over Bharat.

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Many games were contended impart coaching in Rajputs. A game referred to as Satmari was contend for coaching associated with elephants. Another game was Malati, within which the rider wants to substitute the centre with Ballam and plenty of balls were thrown on him. Rider want to defend himself. the explanation for taking part in this game is that it tutored the rider to avoid attacks returning from all sides. Warriors used this kind of coaching to stay themselves invariably prepared for war. except this, horse riding and searching were conjointly concerned in such coaching. Whenever warriors had any likelihood to peace within the interior of war, they unbroken themselves sturdy with such activities.

Apart from this, training to wield weapons was given to the soldiers. The essential coaching in strategies of weapon application supported the abilities of handling a stick is that the general principle for all combat systems. Throughout the coaching, stick was utilized in place of the weapon. There was no risk of any loss and coaching may even be completed. Weapons area unit used for Training or any stick doesn't matter. The importance is that what percentage movements area unit done ceaselessly victimisation stick as a result of the quantity of movements area unit necessary within the method of teaching the handling object.

There were a system Pentra. During this pedagogy, results in bound movement talent with no charm to any sacred which means or miraculous characteristics. Once we learn to manoeuvre endlessly in these ways in which, the coaching is started with the arm. This coaching is given so the articulatio radiocarpea of the hand is reinforced so the blow coming back from all sides are often stopped before the arm is employed. The Rajput additionally thought-about that someone, who may learn to handle an arm together with his right and left hands equally well,

had additional blessings in a very fight. The talent of handling 2 swords at a time wasn't simply a theoretical or exceptionally coaching approach.

Even after good training, good weapons and good ability to fight, the Rajput Warriors had to face defeat in some war. Such as the battle of Khanwa, in which Rana Sanga had to be defeated by Babur but there were many reasons behind this defeat.

- Lack of knowledge about Artillery
- Fighting with old Tradition
- Lack of good Strategy
- The main Leader was injured. If we pay attention to the history, it can be seen that whenever anything happens to the main Leader of an army, it directly affects his entire army. This defeat was certain after Rana Sanga was injured.
- Needed a strong offensive-defensive formation, which had been prepared by Babur.

Overall, it can be said that Rajputs were brave warriors. Their weapons were good. Specialized in fighting and wielding weapons. But due to some reasons, they also had to face defeat, but this did not decrease their ability, neither did there be any decrease in their will-power. Hence, they always fought for their people.

Recommendation for Further Work

As I have said, the weapons used by the Rajputs in Medieval time had been going on for a long time. The technical changes made from time to time in old weapons made them better for the future. Similarly, when the weapons of medieval India were made better. It continued till modern times. As I have said, the Rajput Khanda is a weapon lasting till modern times and many evidences of it also exist.

In this study, I have also described the weapons of ancient time which are mentioned in our Vedas. If noted, the weapons we used today are very similar to the weapons mentioned in our Vedas. In future this thing can be proved more through new studies. Our current weapons which use a lot of gunpowder and which give a horrific result after use. Come such weapons are described in our Vedas, whose results were also very deadly and which are very similar to the weapons of present.

Based on the experience gained during this study, I can say that people know very little about weapons. Studies like swordplay are still conducted in the south of India. This is a kind of Training in which new youth are taught how to wield swords, how to protect themselves and how to fight. But no one knows this art today. On the basis of my experience, I can say that today this art is limited to only one corner of the country. We should take this art forward and tell people about it. This art has been going on since ancient times and through this, soldiers were prepared and soldiers sent to war by giving some similar teaching. I think this topic is very important for future study. This topic needs to be further disseminated, so that people can get to know about it and promote this art.

In this study, I have described some important points. How did the Rajput prepare weapons? How a weapon was shaped? Which technique was used? Which metal was used? By which people these weapons were prepared? Besides, what role did the Rajput army play in war? What kind of armies were there? How were the soldiers maintained? What were their strategies? I have paid attention to many such points.

Apart from the medieval Rajput, there have been many warriors in Ancient and modern time, whose subject should be discussed. Apart from this, what was the relationship between ancient, modern and medieval weapons is also a matter of discussion.

Annexure

Questionnaire for Museum Visitors

[The Questionnaire is created by Sangeeta Tomar, Research Scholar, for Ph.D. thesis on
**IDENTIFICATION OF THE VALUE OF WEAPONRY WITH THE RAJPUT
RULERS [CASE STUDY OF BATTLE OF KHANWA AND BATTLE OF
HALDIGHATI]**

1. Name: _____

2. Age: _____

3. Gender: _____

4. Address: _____

5. Organization: _____

6. Designation: _____

7. Why did you visit this Museum?

To know about the Weapons and History

For Project

To Enjoyment

8. What do you know about the Weapons?

9. Do you think that there was a change in weapons over time? How much do you know that?

10. Are you aware of the Strategies of Rajputs, their weapons and their soldiers?

Yes –

No –

11. Do you think that the weapons of Rajputs were much better and with time they made them better? What would you like to say about this?

12. Do you think people are aware of weapons and strategies?

13. What should we do to make people aware about this?

Exhibitions

Workshops

Lectures

14. Please share your view on themes which need to be discussed and exhibited through museums?

15. Do you know about any such art that teaches to understand how to use weapons?

Thanks for your Valuable Time!

Questionnaire for Museum Professionals

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1. **Name:**
2. **Name of the Organization you are associated with:**
3. **Designation:**
4. **What do you know about the war of Khanwa? Did Babur really win the battle of Khanwa?**

5. **Where are the weapons of Rana Sanga placed/kept in Present time? What was his war strategy in war of Khanwa?**

6. Did Rana Sanga really lose the battle oh Khanwa? What was the main reason behind his loss of the war?

7. Like Maharana Pratap, did Rana Sanga get manufactured his weapons by a particular caste?

Yes-

No-

8. Did Rana Sanga use any technique to get manufacture or develop his weapons? What was that?

9. Were the Rajput's Weapons Weak?

Yes-

No-

State your answer-

10. How did the Rajput's prepare their weapons? What Metal did they use to make weapons?

11. Do you see anything special in their weapons?

12. Are there any special techniques they used to prepare in their weapons?

Yes-

No-

13. What do you know about the Gorilla war method? Did Maharana Pratap use any method other than this method in the battle of Haldighati?

14. Which metal was used to make weapons during the reign of both Rana Sanga and Maharana Pratap?

**15. How did the use of gunpowder in the war by Babur affect the Rajput army?
After the use of gunpowder by Babur did the Rajputs change their method of fighting the war?**

16. What was the contribution of Gadi Lohar in making the weapons of Maharana Pratap and with what technique did they manufacture weapons?

17. Did Rajput women also have any kind of contribution in the war?

Yes-

No-

18. What were the principles for making/preparing any war strategy?

19. How were soldiers trained? On what basis were soldiers recruited into army?

Rajputs preferred foot fighting, was there any special training for it? from what age did this training begin?

20. What kind of activity can be organized to inform people about the weapons kept in museum?

21. Apart from the exhibitions, how can we make people aware of these weapons and the facts related to them?

22. Do people support the exhibitions you have done?

Yes-

No-

23. What kind of people are more involved in such exhibitions?

Students

Scholars

Historians

Common Public

Thanks for your Valuable time!